



**ABM FOOD FORMER
MODELS
F2000 – F3000 - F4000 - B1200 – HD3000
OPERATION & SERVICE MANUAL &
PARTS LIST**

*** IMPORTANT SAFETY NOTICE ***

This Manual contains important
safety instructions which must
be strictly followed when using this equipment.

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WARRANTY

The installation, the starting, and the operating of the machine must be performed by skilled personnel only, who knows the machine. The personnel assigned to the assistance and maintenance must always follow the instructions contained in the manual. The food forming machine must be used by trained personnel only. If necessary provide for the personnel's training, to learn the usual operations in order to assure the correct use of the machine.

ABM disclaims all responsibility in case of:

- Assembly of the components of the machine and the electric connection not effected according to the established rules;
- Improper use of the machine;
- Tampering the controls or the security protection;
- Use of non-original spare parts;

The warranty does not cover the normal use of the parts.

RELIABILITY

In case of improper use of the machine, it is possible to have injuries and accidents.

The food forming machine must be used only by the personnel who must know the machine and the content of the manual:

- Make sure that unskilled personnel – and especially children – do not operate the machine;
- Do not modify or remove the safety devices (covers and protections), especially those installed at the meat inlet;
- Never tamper with the electric system;
- Use the machine with concentration avoiding distractions;
- Before cleaning and maintenance, always disconnect the machine from the supply system;
- Periodically check the main supply wire, in case of breaks or bad functioning, provide for the replacement by skilled personnel.
- Never go near the machine with loose hair, clothes, bracelets, chains, rings, ties, etc. to avoid the chance that they become tangled in the moving parts of the machine;
- Stop the machine whenever it makes strange noises during the functioning;
- Always keep the working area clean and dry;
- Do not deal with the repairs if you are not able to eliminate the possible breakdowns, but contact the technical assistance;
- The machine is made of accessories and parts especially designed in order to reduce the maintenance and minimum.

GENERAL TECHNICAL FEATURES

Description

- The ABM Food Forming machine is characterized by:
- Compactness and small overall measurements and with special features, able to satisfy the producing requirements of both the great and the small distribution;
- Reliability and safety in the operation and the cleaning processes;
- Hygiene of the parts in contact with the product through the use of innovative materials conformed to the current regulations;
- Precision and compactness of the finished product;
- Strength, easy use, controls and working stationing especially designed to optimize ergonomics.

Main Features

- The castings are made of anticorrosional thermally treated with innovative material for food, while all the other components have been made of stainless steel. These parts are particularly fit to resist the corrosive agents of the products used and are in conformity with the hygienic regulations for food;
- The moving parts are started by an electronic motor and the movement transmission operates through a chain and mechanism;
- The hopper, the paddle, the conveyor belt, the drum and the accessories are easily disassembled to effect a regular cleaning.
- The thickness of the product is adjustable;
- The quantity of the hamburgers produced per hour can be varied on request in the models with current continue motors;
- The hopper and the moving of the product operate in a continuous way and this allows a homogenous dough;
- The controls are easily identifiable and suitable to prevent accidental starting;
- The transmission parts are located inside the crankcase;
- The machine is equipped with a device which allows the cleaning of the roll during functioning (scraper) and permits the separation of the products;
- Different drums are available, suitable to the forming of products with different shapes;
- On request, the machine can be supplied with electrical motors of different tensions.

Safety Devices

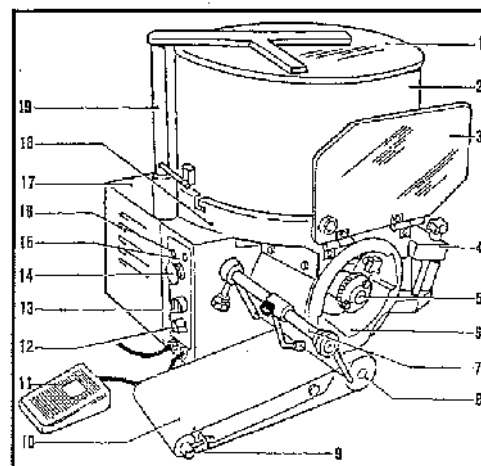
The Food Forming Machine is equipped with the following protection and safety devices:

- Safety micromagnet on the hopper;
- Plastic cover servo-assisted by a micromagnet;
- Protection and front cover of the removable parts;
- Handle of the paddle optimized to avoid crushing and use of keys or particular tools;
- Starting of the machine through reverser for servo-assisted manual or automatic control;
- Emergency button
- Materials in conformity with the food hygienic regulations and fit to guarantee the good resistance to oxidation.

Components Description

CONTENTS

1. Cover
2. Hopper
3. Protection
4. Papering attachment
5. Drum stop ring nut
6. Drum
7. Scraper
8. Leading roll
9. Led roll
10. Conveyor belt
11. Footswitch
12. Speed variator for the mod. with current continuous
13. Manual/automatic switch
14. Stop button
15. Feeding signal light
16. Stop signal light
17. Transmission protection crankcase
18. Base
19. Cover shaft



Overall Measurements

F2000/4000

Length (A) 620

Width (B) 500

Height (C) 610

Gross Crated Weight – 72 kg.

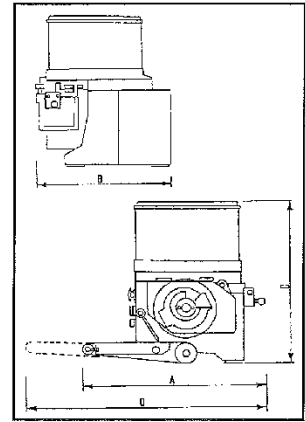
Net Uncrated Weight – 67 kg.

Hopper capacity – 20 kg.

Optional Conveyor Belt – 1850 x 145

Hopper Power – see identification tag

Motor Power – see identification tag



INSTALLATION

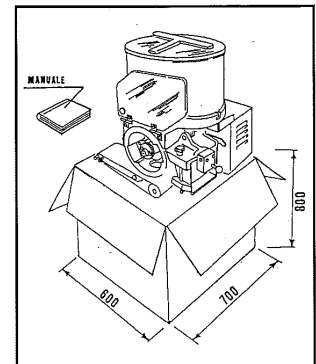
Packing Check

- At the receipt of the machine, check the package to verify that the machine has not been damaged.

The components of the package can be assimilated to the urban solid rubbish.

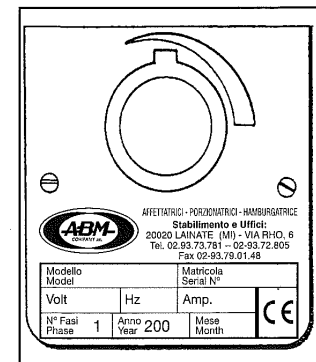
Placing the Machine

- It is advisable to place the Food Forming Machine on a stable working table positioned on a height of about 800mm from the ground.
- The installation area must allow the use of the machine in an optimal and ergonomic way. It is advisable to place it in a dry, breezy place, far from warmth sources; it can be used without any special arrangement of a normal working place.



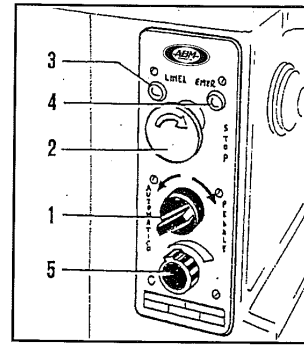
Electrical Connections

- The machine is equipped with a feeding wire. Before connecting it to the socket, verify the functioning tension showed on the identification tag.
- In case the details do not correspond, contact the distributor for the assistance service.
- The socket for the connection must correspond to the current rules.



Control Panel

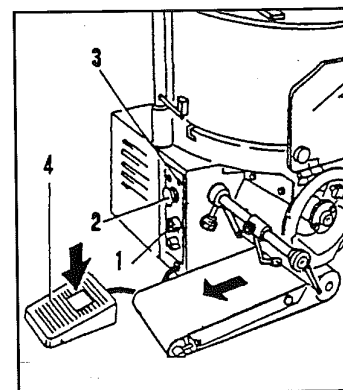
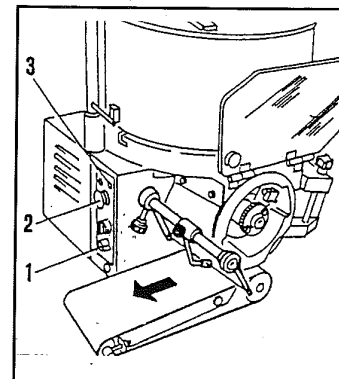
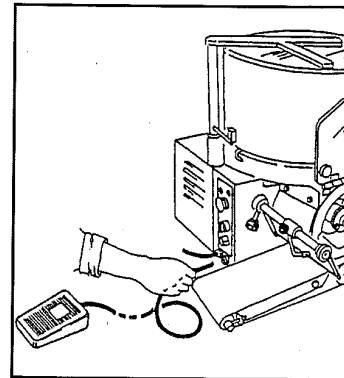
- Starting switch (automatic/manual) (1)
- Red stop button (2)
- Machine operating signal lamp (3)
- Machine stop signal lamp (4)
- Handle for speed regulation (5)
(only for model at variable speed)



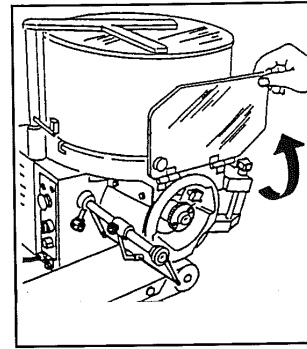
Note – in the Model F4000 the regulation of the speed and the quantity of hamburgers is made by rotating the regulating handle with a quantity of products variable from... to a maximum of 4000 pieces per hour.

Operating Test

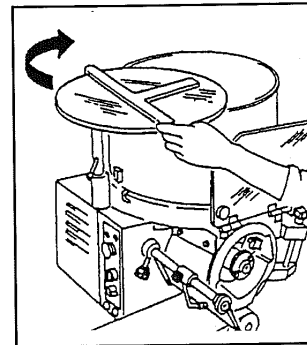
- Before controlling the operation, if you have not already done, you must assemble the hopper, assemble the conveyor belt, close the cover and the front protection.
- Connect the footswitch, inserting the control pipe into the bush on the control panel side.
- Connect the plug to the socket.
- Position the switch handle (1) on automatic.
- Verify the rotation of the drum and the conveyor belt (see the arrow).
- Verify the lighting of the light.
- Push the stop button (2), the machine must stop and the light (3) must light up.
- Position the switch handle (1) on manual.
- Press the footswitch.
- Verify the rotation of the drum and the conveyor belt (see the arrow).
- Verify the lighting of the light.
- Push the stop button (2). The machine must stop and the light (3) must light up.



- During the operation, when lifting the front drum protection, the machine must stop.
- To continue, close drum protection, turn the operating switch again.



- During the operation, when rotating the hopper cover, the machine must stop.
- To continue, close hopper cover, turn the operating switch again.



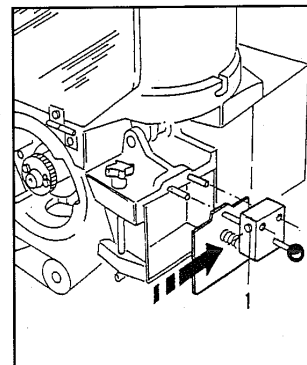
UTILITY

To obtain good results you must use fitted meats and doughs. Arrange the machine with all the accessories disassembled.

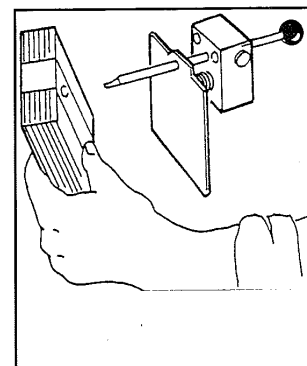
It is advisable not to use and let the machine function without any product in the hopper.

Loading the Automatic Papering Attachment

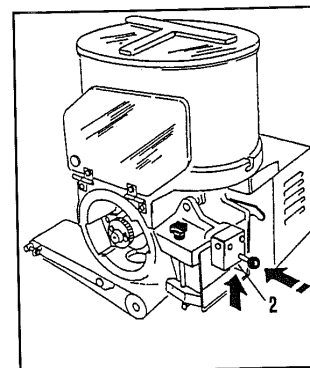
- Take out the papering attachment by pushing the button (I) and slipping it off from the guide pins.



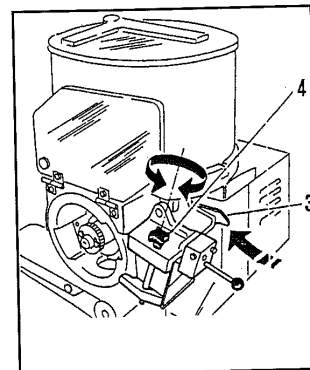
- Replace the pushing spring.
- Insert the paper block and take away the wrapper.



- Reassemble the papering attachment in the guide pins, until the stop click.
- Release the spring using the button placed under the papering attachment (2).



- Position the papering attachment, freeing the locking lever (2).
- Regulate the center of the paper, turning the centering knob (4).



Before cleaning the machine, always make sure that the machine is stopped and disconnected from main supply.



Never use high pressure sprays during cleaning.



Never use solvents, thinners, alcohol, etc. during cleaning.

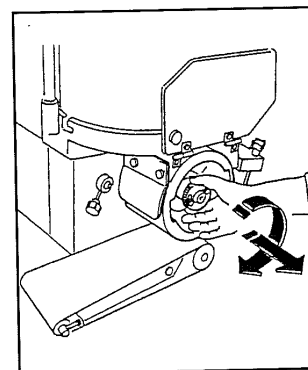


Only use lukewarm water and some neutral detergent.

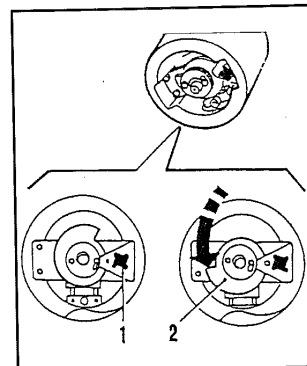
Product Thickness Regulation

The machine is regulated in the factory with a medium thickness; to obtain another thickness, follow the instructions indicated below:

- Take out the regulation drum by operating on the ring nut clockwise and taking out the drum.



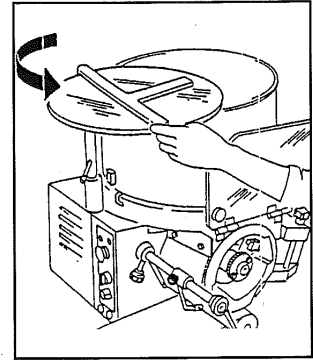
- Loosen the stop knob of the gauging device (1).
- Turn the gauging device, to regulate the thickness (2).
- Lock the stop knob (1).



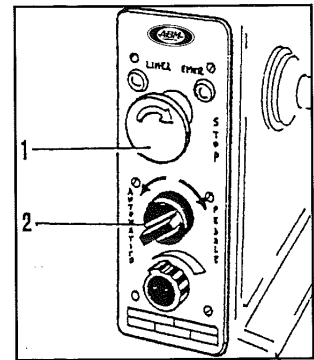
- Reassemble the drum, inserting it in the guide shaft, until the stop click.

Loading the Product and Use

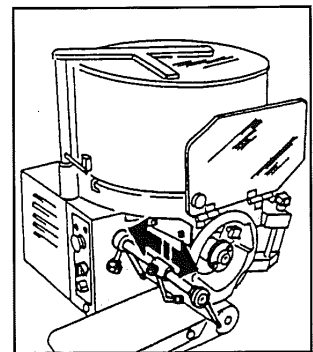
- Open the cover and load the product in the hopper and close the cover again.
- Connect the plug to the socket.



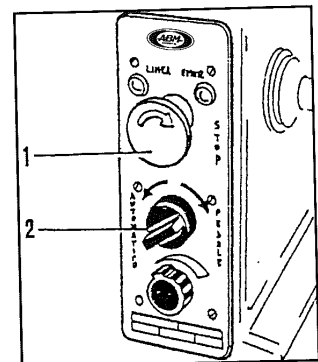
- Start the machine: push the automatic switch (1).
- Regulate the production speed with the regulation handle (2) (only for model with selector).



- During the operation, operate intermittently, in order to clean the drum from residual product.
- The product will come down on the conveyor belt and will be moved to its end.



- To stop the machine, operate on the stop button (I) or open the protections.
- To continue, release the stop button and turn the start switch again (2).



CLEANING AND HYGIENE

Complete Cleaning

- It is advisable to clean the machine daily or if necessary more frequently, in case it was very dirty or after long periods of inactivity.
- The cleaning must be carefully made for the parts in contact with the product.
- Clean the structure of the machine with soft cloths, sponges, and rinse with water frequently. Finally dry with soft and dry cloths.

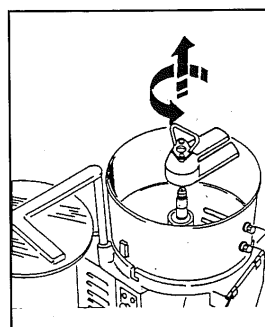
Attention: the machine is not protected against steam cleaners, high pressure power washer, or similar systems. In this case there is risk of short circuit or serious damages to the machine.

Disassembly of the Removable Accessories

- All the cleaning operations of the machine must always be done with the machine not equipped with hopper, taking out the plug from the socket.

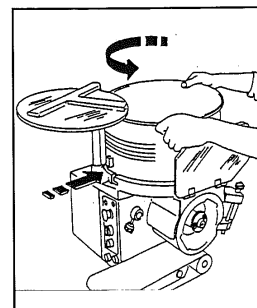
Disassembly of the Paddle

- Hold the handle, turn anti-clockwise and lift.
- To avoid accidents before disassembling, position the paddle away from the hopper pins.



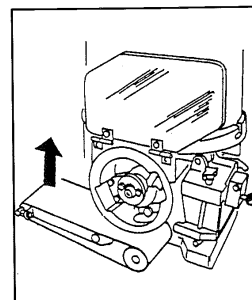
Disassembly of the Hopper

- Open the cover completely.
- Turn the hopper anti-clockwise, lift it and take it away from the base.

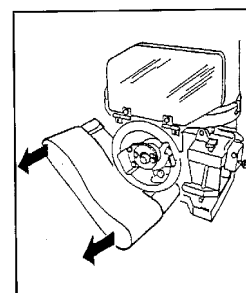


Disassembly of the Conveyor Belt

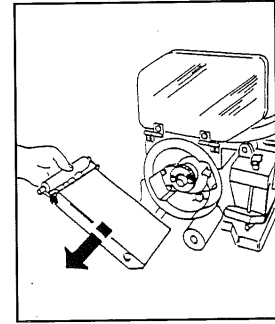
- Lift the belt on the side of the return pulley.



- Take off and disassemble the conveyor belt.



- Disassemble the complete conveyor from the guide pin.



Disassembly of the Regulation Drum

- Turn the stop ring nut anti-clockwise, pull the drum and disassemble it from the control pin.

Disassembly of the Scraper

- Loosen the stop knob of the scraper shaft.
- Take off the complete scraper.

Cleaning of the Disassembled Components

- All the disassembled components must be washed with warm water, neutral detergent, rinsed in water and dried.

Assembly of the Accessories

To effect the reassembly of the accessories, proceed in the inverse way to what previously described in the disassembly. Pay special attention to the assembly of the following accessories:

- **Hopper:** Insert the hopper with the two guide pins in the fusion taking care to position the micro-magnet on the side of the cover shaft and turn it until it hooks the pins.
- **Paddle:** position the inserting shaft of the paddle so that the pins in the hopper do not overlap the paddle, then hold the paddle, put it on the shaft, making the shaft plug coincide with the housing in the drum.
- **Drum:** assembly the drum in the guide pin, making the shaft plug coincide with the housing in the drum.

MAINTENANCE

Ordinary Maintenance

The machine does not require a special maintenance for the regulations or replacements of parts, but only requires a normal maintenance carried out by the operator which consists of the following operations:

- Verify the operation of the micro-switches and of the electric buttons.
- Verify the state of use of the feeding wire.

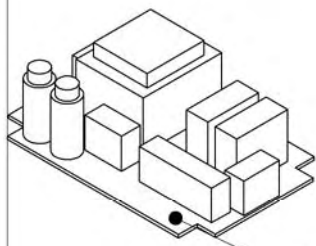
Whenever there was the necessity of repairs or special maintenance, contact the assistance service or a qualified technician.

ABM
F2000 - F 3000 - F4000 - B1200 - HD3000
RICAMBI CONSIGLIATI
RECOMMENDED SPARE PARTS

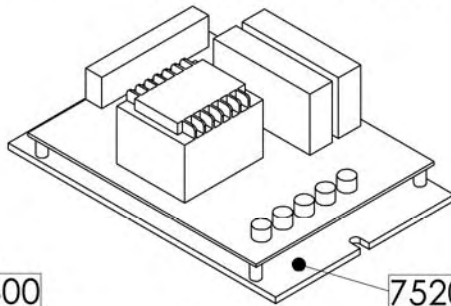
MODEL: F4000/C.C.MOTOR ONLY

PROTECTION BOARD

CONTROL BOARD



75300



75200

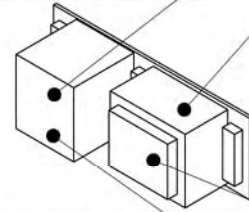
UP TO SERIAL NUMBER: 1709

**MODEL: F2000/3000/HD3000
B1200/F4000 INVERTER**

UP TO SERIAL NUMBER: 1709

Z9TCA 115V/60Hz.

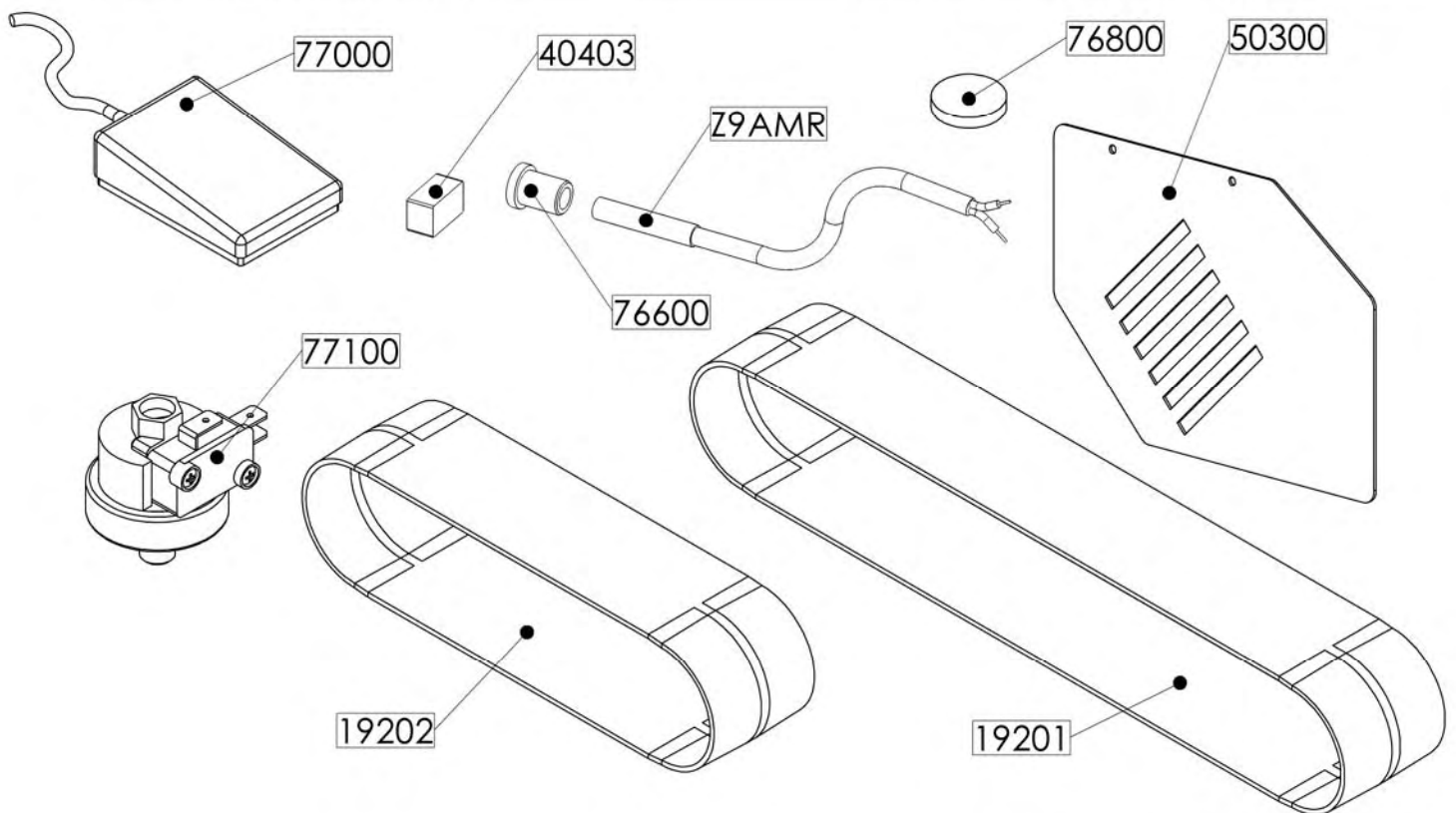
Z9SCH



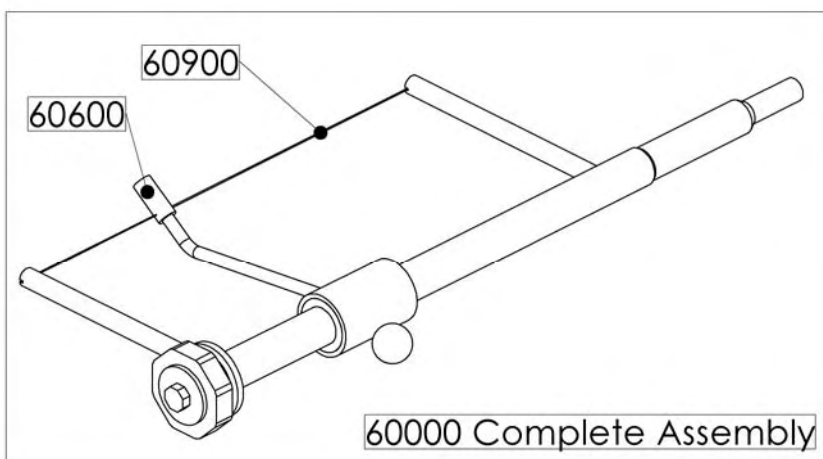
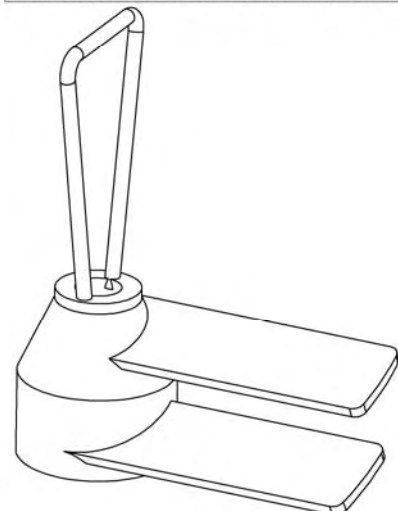
77800 115V/60Hz.

77700

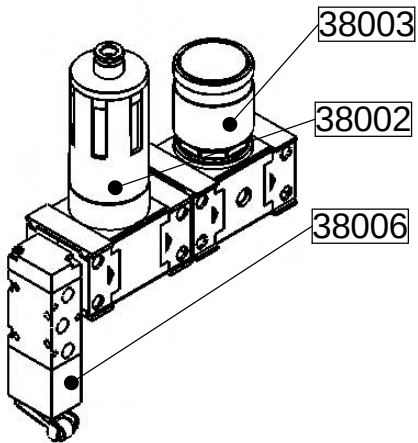
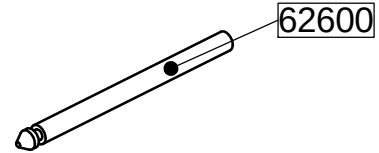
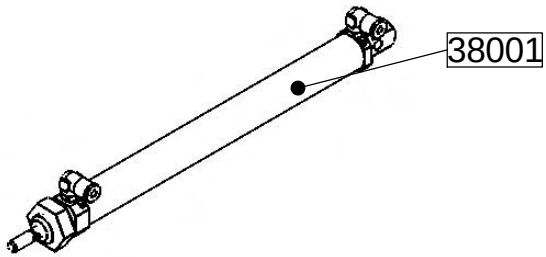
FROM SERIAL NUMBER: 1710



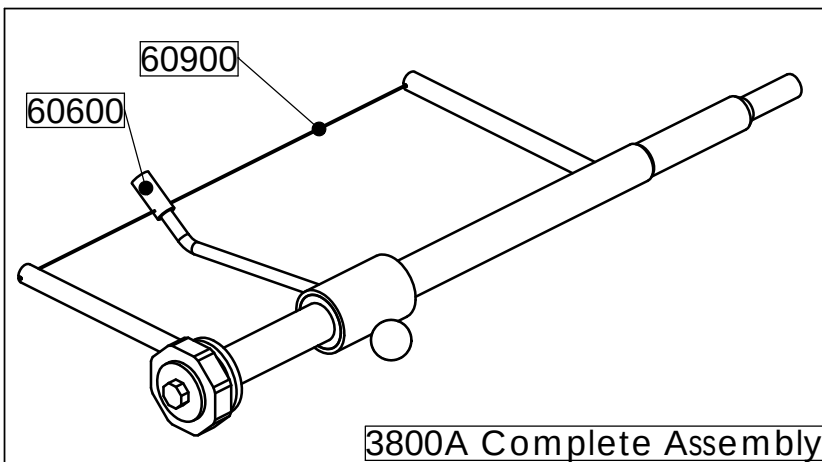
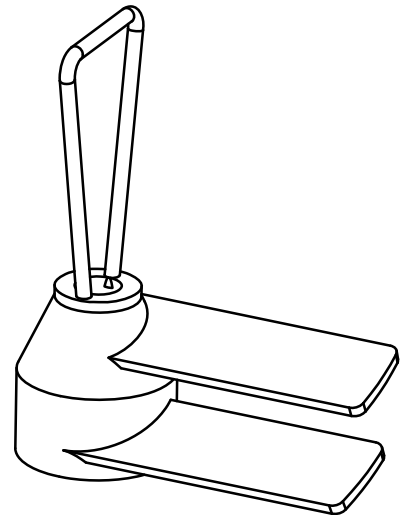
13700-COMplete ASSEMBLY



**ABM
HD 3000 PNEUMATIC
RICAMBI CONSIGLIATI
RECOMMENDED SPARE PARTS**



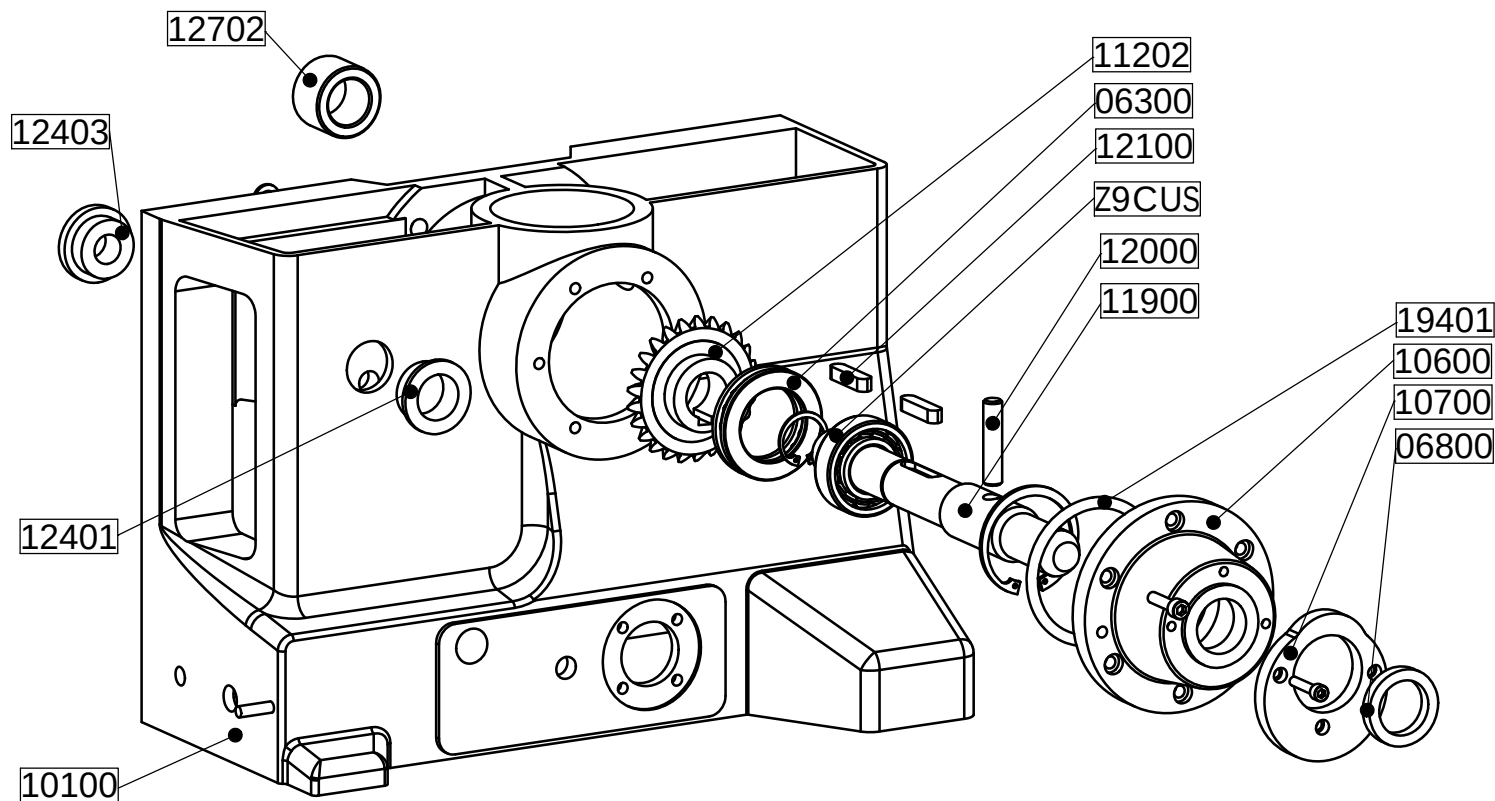
13700-COMPLETE ASSEMBLY



3800A Complete Assembly

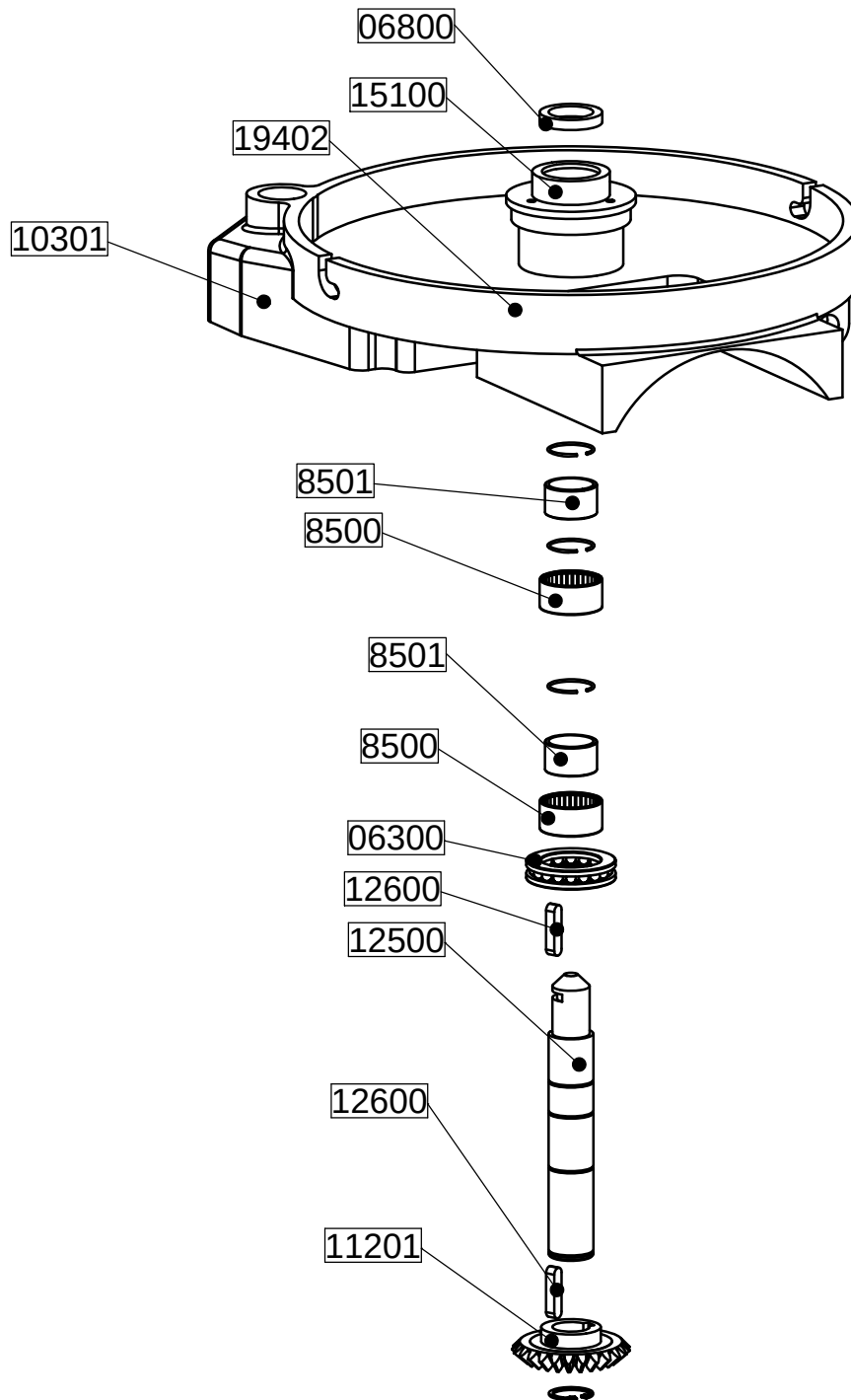
CODE	DESCRIZIONE	DESCRIPTION	Q.TY
F9338001	CILINDRO 1130160170CP ISO 6432	CILINDER - ISO 6432	1
F9338002	MR BIT 1/8 04 - FILTRO	AIR FILTER	1
F9338003	FIL BIT 1/8 20 RMSA	FIL BIT 1/8 20 RMSA	1
F9338006	VALV MEV 25 RSS 00	SWITCH -	1
F933800A	GR.PULITORE PNEUM	COMPLETE PNEUMATIC CLEANER ASSEMBLY	1
F9362600	PISTONE CILINDRO PULIT.PNEUM	PNEUMATIC PISTON	1
F9360600	PULITORE FILO	WIRE CLEANER	1
F9360900	FILO PULITORE Ø1mm	S.S.WIRE	1
CODE	DESCRIZIONE	DESCRIPTION	Q.TY
F9313700	RACLA HAMBURGATRICE	PADDLE	1

ABM
F2000 - F 3000 - F4000 - B1200 - HD3000



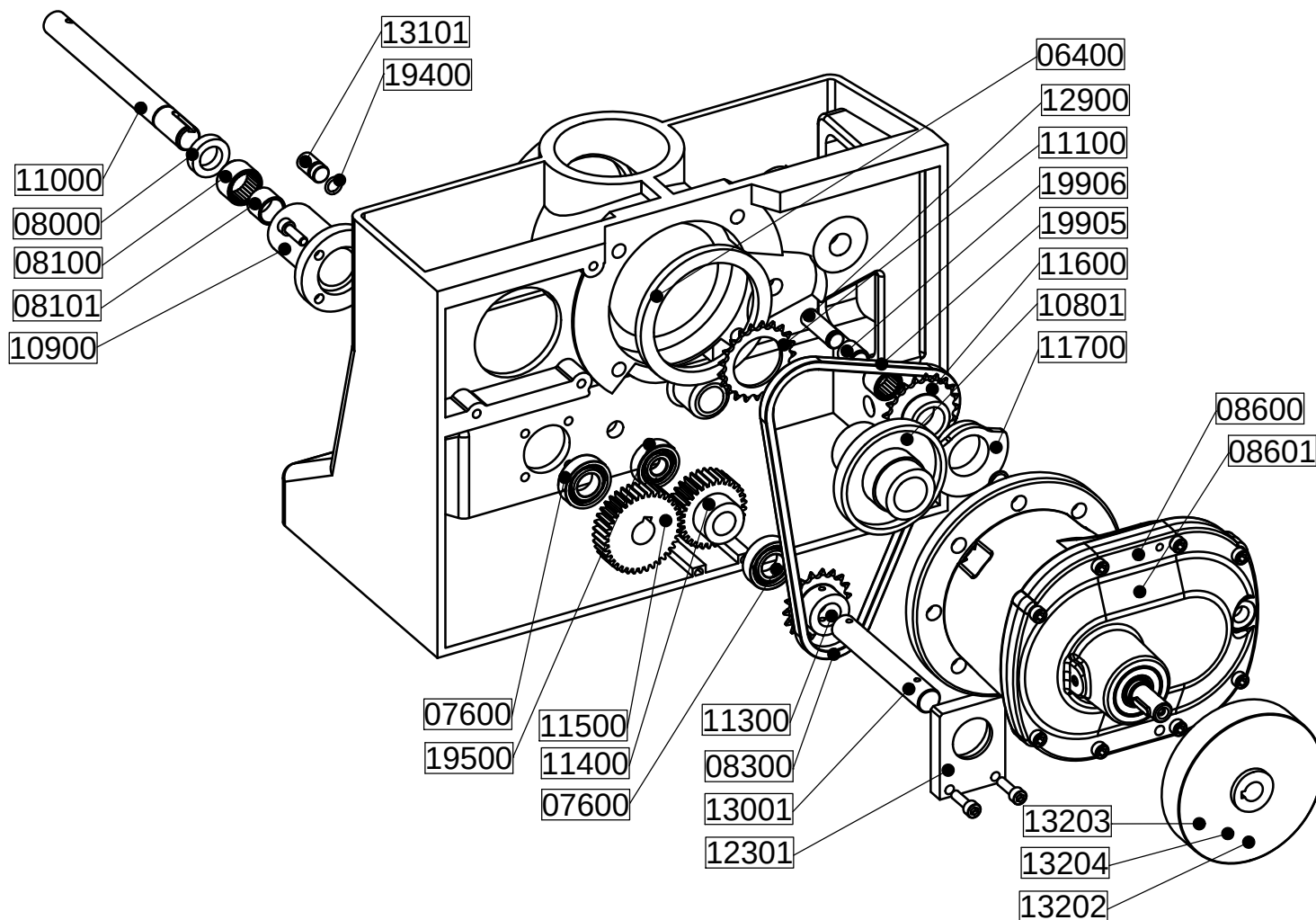
CODE	DESCRIZIONE ARTICOLO	DESCRIPTION	Q.TY
F9306300	CUSCIN.51108 40x60x13	BEARING 51108 40x60x13	1
F9306800	ANELLO TEN. AS 30x42x7 NBR	SEAL AS 30x42x7 NBR	1
Z9CUS	CUSCIN.6205 2RSH 25x52x15	BEARING 6205 2RSH 25x52x15	1
F9310100	BASE F93 #	FRAME	1
F9310600	MOZZO ALBERO TAMBURO #	SHAFT HOUSING	1
F9310700	CAMMA ESPULSIONE CAMERA	CAM	1
F9311202	INGRAN.CONICO 30x33,2 M=3 Z=25	CONIC GEAR 30x33,2 M3 Z=25	1
F9311900	ALBERO TAMBURO d30x248	SHAFT d30x248	1
F9312000	SPINA 10x46 h8 (albero tamburo	PLUG 10x46 h8	1
F9312100	LINGUETTA 8x7x35 UNI 6605 69 A C40 (con foro)	KEY 8x7x35 UNI 6605 69 A C 40	1
F9312401	BOCC. ant. BASE 40x16 Ertalon	BUSHING 40x16 ERTALON	1
F9312403	BOCC.sup.Cupola/post.Base	BUSHING	1
F9312702	BOCC. 26,7x32x39	BUSHING 26,7x32x39	1
F9319401	ANELLO OR 80 x 3 NBR	O RING 80x3	1

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CODE	DESCRIZIONE ARTICOLO	DESCRIPTION	Q.TY
F9306300	CUSCIN.51108 40x60x13	BEARING 51108 40x60x13	1
F9306800	ANELLO TEN. AS 30x42x7 NBR	SEAL AS 30x42x7 NBR	2
F9308300	CATENA RCX P.8 semp.ISO 9001 L=568 (570)	CHAIN P.8 ISO 9001	1
F9308500	BOCC.a RULL.36x42x20 HK3520 ordinare+ANELLO IR 30x35x20	BUSHING 36x42x20 HK3520	1
F9308501	ANELLO IR 30x35x20xBOCC.HK3520	RING IR 30x35x20xBOCC.HK3520	1
F9310301	CUPOLA F93 #	HOPPER PLATE	1
F9311201	INGRAN.CONICO 25x28,2 M 3 Z=25	CONIC GEAR 25x28,2 M3 Z=25	1
F9312500	ALBERO RACLA d30x195	PADDLE SHAFT d30x195	1
F9312600	LINGUETTA 8x8x45 INOX 316 Tipo A non unificato con foro	KEY 8x8x45	1
F9315100	BOCC.87x33,5 Alluminio	ALU BUSHING 87x33,5	1
F9319402	ANELLO OR 69.3 x 5.7 NBR	O RING 69,3x5,7	1

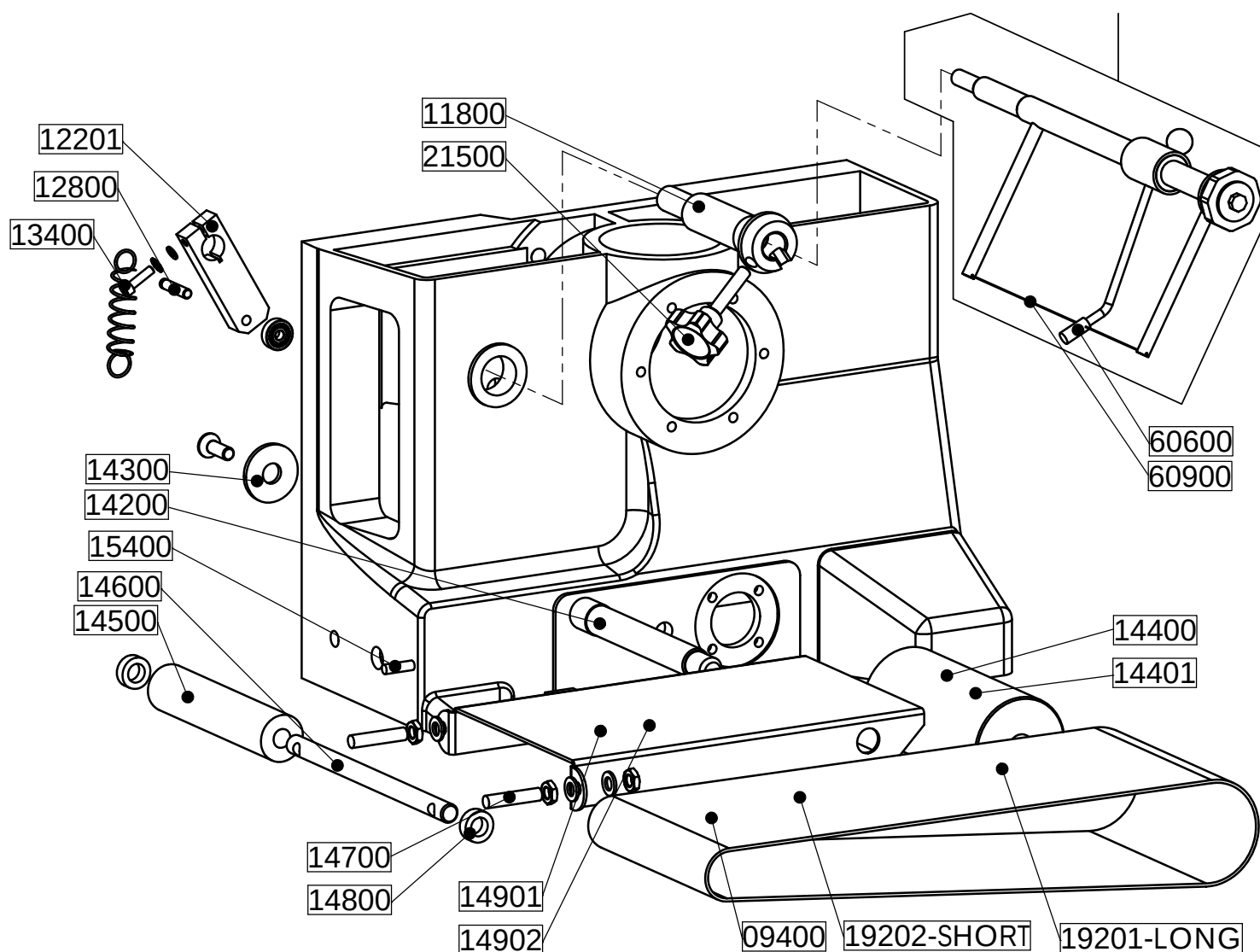
ABM
F2000 - F 3000 - F4000 - B1200 - HD3000



CODE	DESCRIZIONE	DESCRIPTION	Q.TY
F9306400	ANELLO TEN. AS 80x100x10 NBR	RING 80x100x10	1
F9307600	CUSCIN.6003 2RS 17x35x10	BEARING 6003 2RS 17x35x10	2
F9308000	ANELLO TEN. AS 17x28x7 NBR	RING 17x28x7	1
F9308100	BOCC.a RULL.17x20x16 NK20/16 ordinare+ANELLO IR 17x20x16	BUSHING 1720x16 NK20/16	1
F9308101	ANELLO IR 17x20x16	RING 17x20x16	1
F9308300	CATENA RCX P8 ISO 9001 L=568 (570)	CHAIN P8 ISO 9001	1
F9308600	RIDUTTORE RC 220 B5 1:30 F2000/3000/4000	GEAR BOX RC 220 B5 1:30	1
F9308601	RIDUTTORE RC 220 B5 1:46 B1200	GEAR BOX RC 220 B5 1:46 - B1200	1
F9310801	GIUNTO 80x66	GEAR 80x66	1
F9310900	SUPPORTO ALB. NASTRO 60x67	CONVEYOR SHAFT SUPPORT 60x67	1
F9311000	ALBERO Rullo conduttore 17x179	SHAFT 17 x 179	1
F9311100	PIGNONE CATENA COND.P.8x3 Z=21	CHAIN PINION 8x3 Z=21	1
F9311300	PIGNONE CATENA TR. P 8x3 Z=18	CHAIN PINION 8x3 Z=18	1
F9311400	INGRAN.RINVIO M 1,5 Z=32	RELEASE GEAR M 1,5 Z=32	1
F9311500	INGRAN.CONDOTTO M 1,5 Z=38	GEAR M 1,5 Z=38	1
F9311600	PIGNONE CAMMA PULIT.P 8x3 Z=21	CAM PINION 8x3 Z=21	1
F9311700	CAMMA PULITORE	SCRAPER CAM	1
F9312301	SUPPORTO RINVIO	RELEASE SUPPORT	1
F9312900	PERNO CAMMA PULITORE 12x37	CAM PIN 12x37	1
F9313001	ALBERO RUOTISMI RINVIO 17x115	RELEASE SHAFT 17x115	1
F9313101	PERNO STATICO RINVIO	RELEASE PIN	1
F9313202	PULEGGIA RIDUTTORE 53x31 f4000	GEAR PULLEY 53 x 31 - F 4000	1
F9313203	PULEGGIA RID. 53x31 VEL.VARIABILE	GEAR PULLEY 53x31 F4000	1
F9313204	PULEGGIA RID. 110x31 VEL.FISSA	GEAR PULLEY 110x31	1
F9319400	ANELLO OR 9,25 x 1,78 NBR	O RING 9,25x1,78	1
F9319500	CUSCIN.6201 2RS 12x32x10	BEARING 6201 2RS 12x32x10	1
F9319905	BOCC.a RULL.12x21x16 HK1516 ordinare+ANELLO IR 12x15x16	BUSHING 12x21x16	1
F9319906	ANELLO IR 12x15x16xBOCC.HK1516 vedi note	RING 12x15x16	1

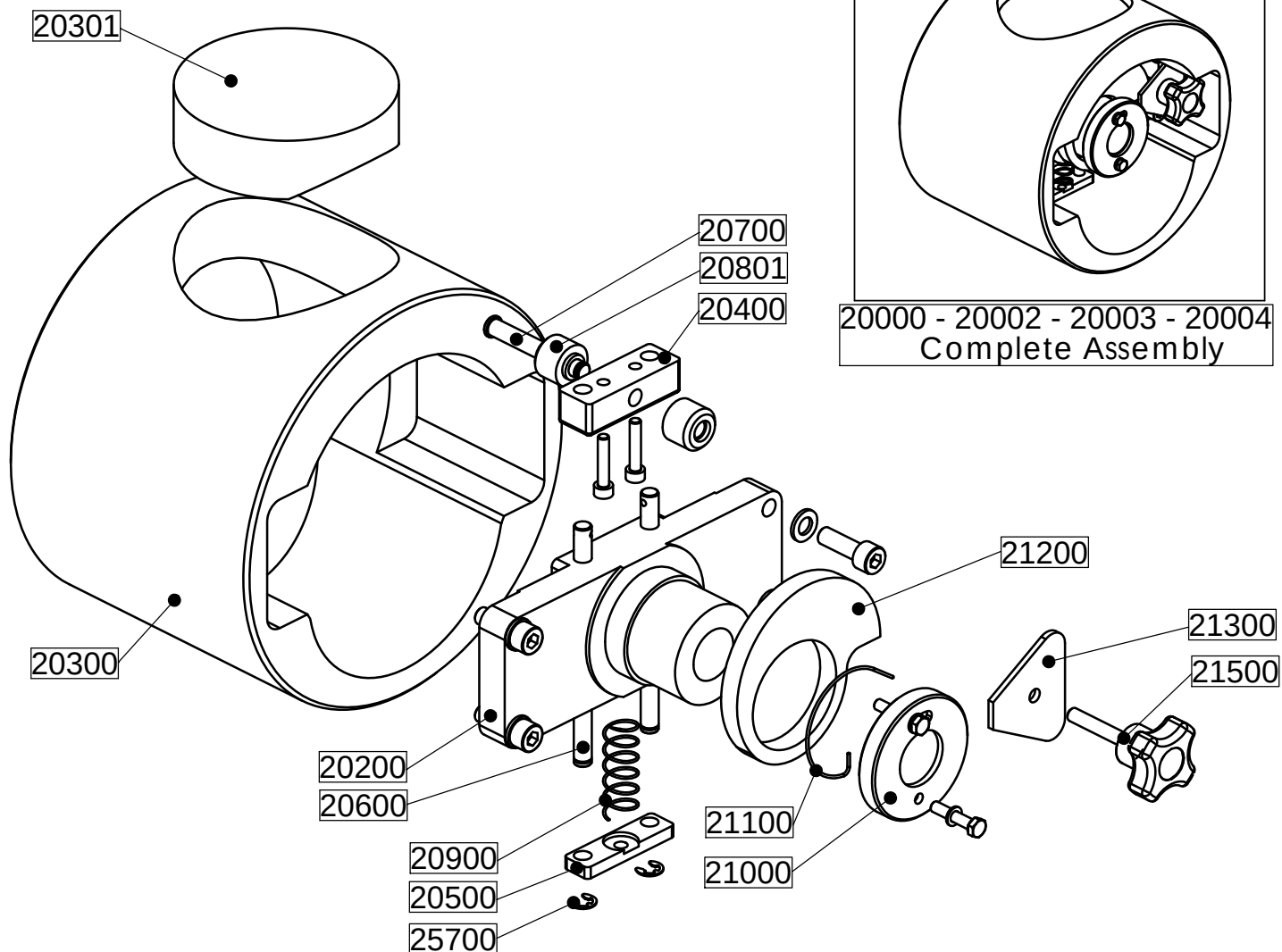
ABM
F2000 - F 3000 - F4000 - B1200 - HD3000

600
Complete Assembly



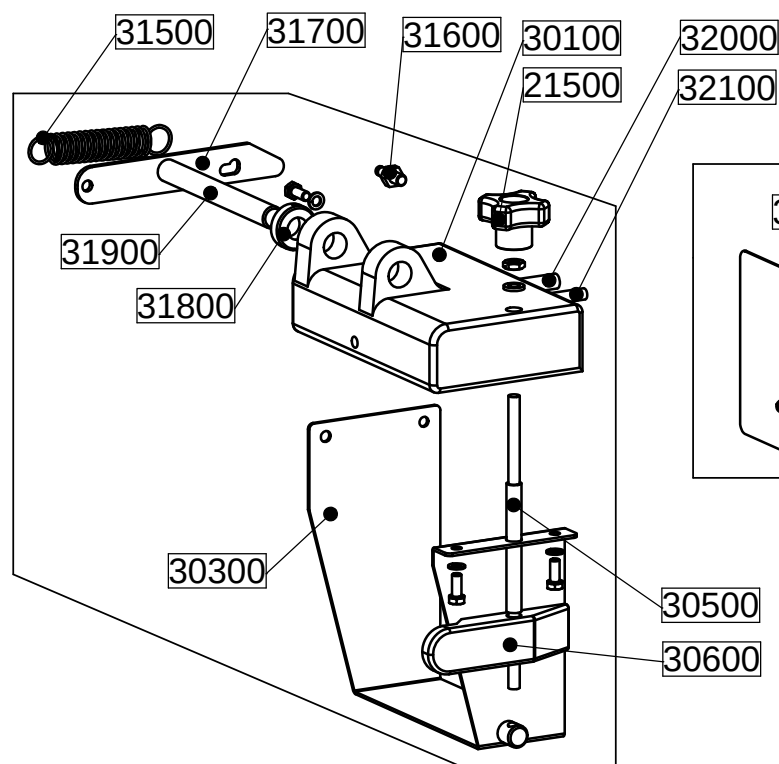
CODE	DESCRIZIONE ARTICOLO	DESCRIPTION	Q.TY
F9309400	NASTRO INOX	S.S. LONG BELT	1
F9311800	SUPP.OSCILLANTE RASCHIATORE	SLIDING SUPPORT	1
F9312201	LEVA COMANDO RASCHIATORE	SCRAPER CONTROL LEVER	1
F9312800	PERNO TASTATORE PUL. 6x30	PULLEY PIN 6x30	1
F9313400	MOLLA TRAZIONE PULITORE	CLEANER SPRING	1
F9314200	STELO BRACCIO 20x187	ARM ASSY 20x187	1
F9314300	RALLA SPALLAMENTO BRACCIO	RING	1
F9314400	RULLO CONDUTTORE 64 x 140	CONVEYOR ROLL 64x140	1
F9314401	RULLO CONDUTTORE DENTATO	SS BELT DRIVER 64 x 140	1
F9314500	RULLO CONDOTTO NASTRO 28x140	ROLL 28x140	1
F9314600	PERNO STATICO RULLO 12x193	ROLL PIN 12x193	1
F9314700	TENDITORE M8x38	LOCKING SCREW M8x38	1
F9314800	ANELLO SPALLAMENTO RULLO diam.20 foro 12 sp.7 mm	ROLL BUSHING	1
F9314901	BRACCIO TRASP. CORTO	SHORT CONVEYOR ARM	1
F9314902	BRACCIO TRASP. LUNGO	LONG CONVEYOR ARM	1
F9315400	PIOLO BRACCIO TRASP. 6x30	CONVEYOR ARM PIN 6x30	1
F9319201	NASTRO Trasportatore Lungo 145x1850mm	LONG CONVEYOR BELT 145x1850mm	1
F9319202	NASTRO Trasportatore Corto 145x840mm	SHORT CONVEYOR BELT 145x840mm	1
F9321500	VOLANTINO D5 6G	PLASTIC KNOB D5 6G	1
F9360600	PULITORE FILO	WIRE CLEANER	1
F9360900	FILO PULITORE ? 1mm	S.S. WIRE	1
CODE	DESCRIZIONE ARTICOLO	DESCRIPTION	Q.TY
F93600	ASSIEME PULITORE	CLEANER ASSEMBLY	1

ABM
F2000 - F 3000 - F4000 - B1200 - HD3000

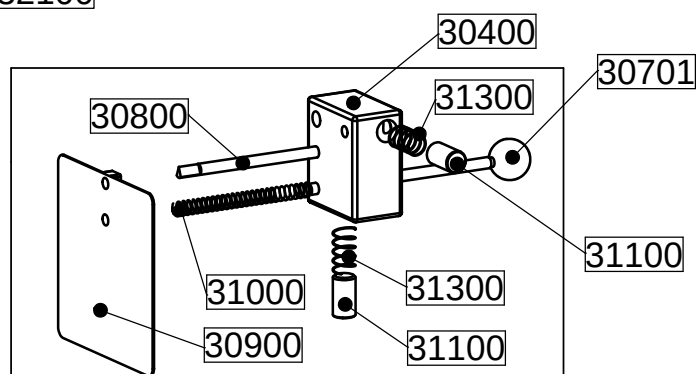


CODE	DESCRIZIONE	DESCRIPTION	Q.TY
F9320200	MOZZO TAMBURO	ALLUMINIUM FRAME	1
F9320300	STAMPO (TUBO POMc 200x140) E206 I133 H156	PLASTIC DRUM	1
F9320301	PIATTELLO ESPULSIONE #	PUSHER -	1
F9320400	SUPP.PIATT.SUPER.x ST. a 1 fig	PLATE SUPPORT	1
F9320500	PIASTRINA GUIDA ASTE CARRELLO	GUIDE PLATE	1
F9320600	ASTA CARRELLO 8x122	PUSHER SHAFT	2
F9320700	PERNO STATICO TASTAT.8x56,5	PIN 8X56,5	1
F9320801	RULLINO TASTAT.CAMMA d.14,5	PLASTIC BEARING d.14,5	2
F9320900	MOLLA RITORNO PIATTELLO	PUSHER SPRING	1
F9321000	AGGANCIO AUTOM.TAMBURO	LOCKING MECHANISM	1
F9321100	MOLLA AGGANCIO AUTOMATICO	LOCKING MECHANISM SPRING	1
F9321200	CAMMA CALIBR.SPESSORE	THICKNESS CAM	1
F9321300	STAFFA CAMMA CALIBRATORE	LOCKING THICKNESS MECHANISM	1
F9321500	VOLANTINO D3/6G mozzo lungo	PLASTIC KNOB - D3 6G	1
F9325700	ANELLO EST. d 8 UNI 7435	RING . d 8 UNI 7435	2
CODE	GRUPPO COMPLETO	COMPLETE ASSEMBLY	Q.TY
F9320000	GR. STAMPO 1 FIGURA	DRUM SINGLE SHAPE ON REQUEST	1
F9320002	GR. STAMPO 2 FIGURA	DRUM DOUBLE SHAPE ON REQUEST	1
F9320003	GR. STAMPO 4 FIGURA	DRUM FOUR SHAPE ON REQUEST	1
F9320004	GR. STAMPO ALLUMINIO BISCOTTI	DRUM COOKIE ALLU - SHAPE ON REQUEST	1

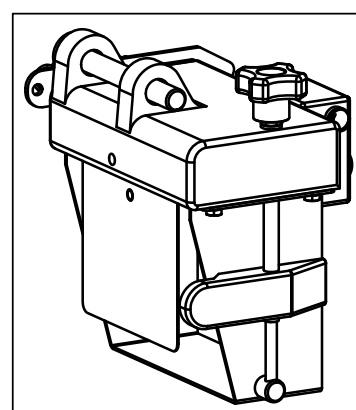
ABM
F2000 - F 3000 - F4000 - B1200 - HD3000



30202 Complete assembly

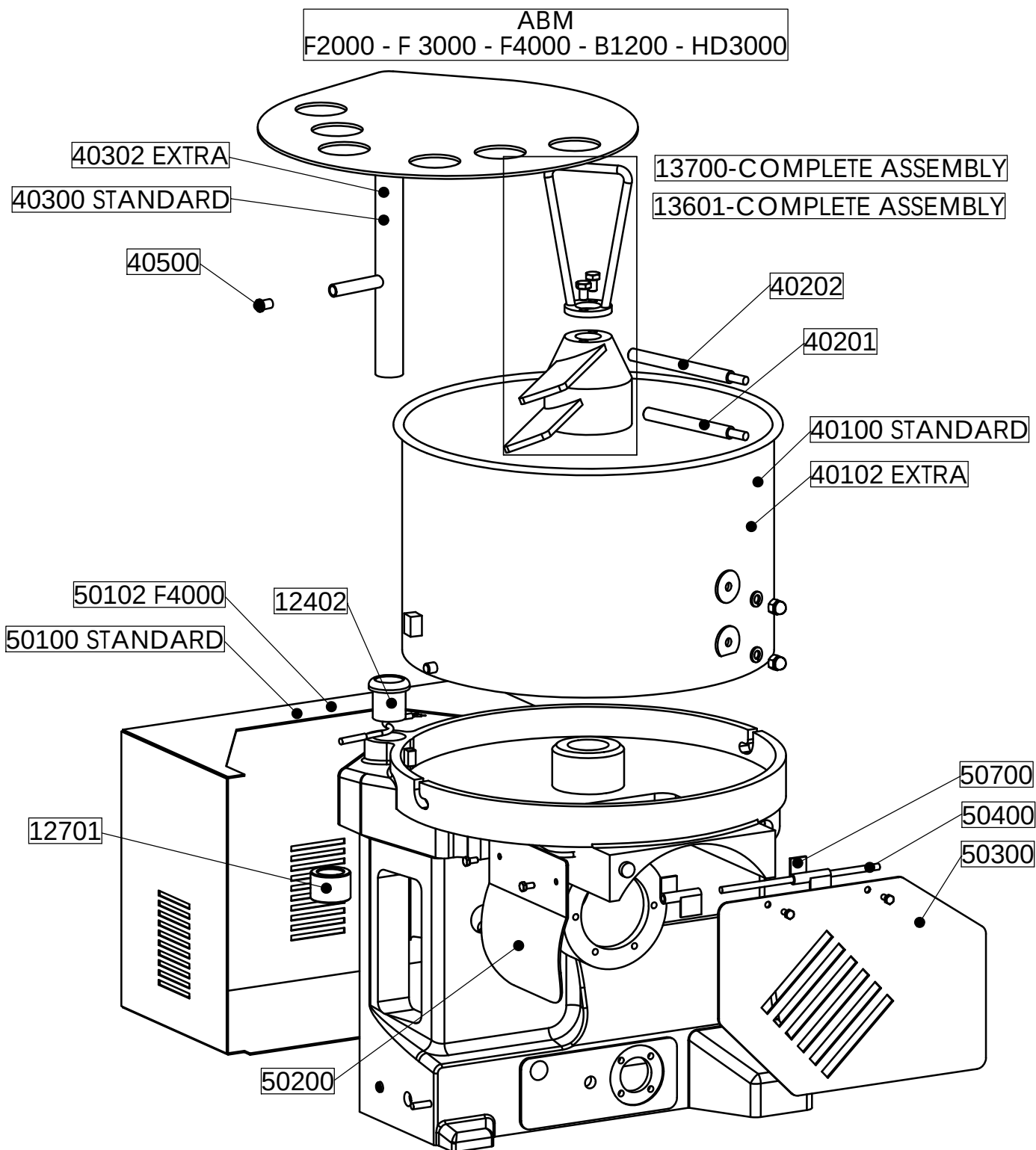


30201 Complete assembly



30000 Complete assembly

CODE	DESCRIZIONE ARTICOLO	DESCRIPTION	Q.TY
F9330400	CORPO CESTEL.CARTA	PAPER HOUSING	1
F9321500	VOLANTINO D3/6G mozzo lungo	PLASTIC KNOB - D3 6G	1
F9330100	CORPO INTERFOGLIATORE #	ALU PAPER ATTACH HOLDER	1
F9330300	CESTELLO CARTA Rg # * con perno saldato F9330301>	PAPER MAGAZINE	1
F9330500	VITE REGOLAZ.FASAT.CARTA 6x160	SCREW 6x160	1
F9330600	TASTATORE CAMMA ATT.FOGLIO CA.	CAM	1
F9330700	STELO GUIDA CARR.INFOGL. 6x117	GUIDING PIN 6x117	1
F9330701	IMPUGN.A SFERA 3105 MEC A d20	KNOB	1
F9330800	BISTURI	PIN	1
F9330900	SPINTORE CARTA Rg saldato	PAPER PUSHER	1
F9331000	MOLLA COMPRESSIONE CARTA	PAPER PUSHER SPRING	1
F9331100	PERNO BLOCCA CARRELLO CARTA	LOCKING PAPER PIN	2
F9331200	PIOLO FERMO CARRELLO 12x7,5	PIN 12x7,5	2
F9331300	MOLLA COMP.FER.DF0,5-DE11-L25	SPRING 05 DE 11	2
F9331400	BUSSOLA FERMO CARR.8x7,5	BUSHING 8x7,5	1
F9331500	MOLLA RICH.CARR.CARTA d.10 L55 serve anche per le GD + UNI	SPRING d 10 L 55	1
F9331600	PIOLO PER MOLLA RICHIAMO CARTA	PIN	1
F9331700	LEVA ESCLUSIONE INTERFOGLIATORE	RELEASE LEVER	1
F9331800	ANELLO D'ARRESTO INF.PERNO SUP	STOPPING SEAL	1
F9331900	PERNO SUPPORTO INTERFOGLIATORE	PAPER ATTACHMENT SUPPORT PIN	1
F9332000	PERNO GUIDA INFOGLIATORE 8x55	GUIDING PIN 8x55	1
F9332100	PERNO GUIDA INTERFOGL. 6x48	GUIDING PIN 6x48	1
F9332200	BOCC.PCM 121415E (Interf)	BUSHING 12x14x15	2
CODE	GRUPPI COMPLETI	COMPLETE ASSEMBLY	Q.TY
F9330000	GRUPPO INFOGLIATORE COMPLETO	PAPER ATTACHMENT COMPLETE	1
F9330201	GRUPPO PRESSACARTA COMPLETO	PAPER PUSHER ASSEMBLY	1
F9330202	GRUPPO SUPPORTO CARTA COMPLETO	PAPER SUPPORT ASSEMBLY	1



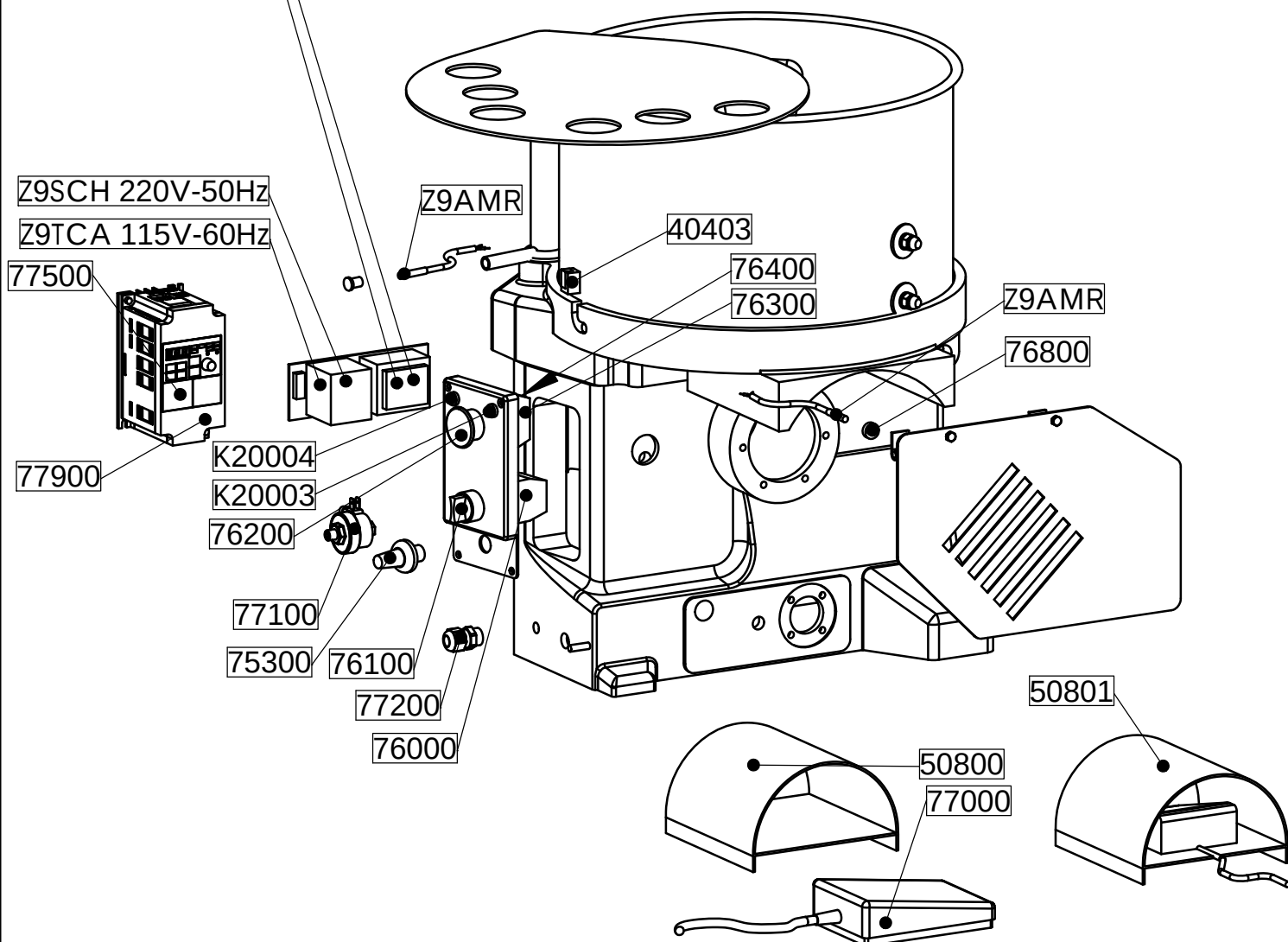
CODE	DESCRIZIONE	DESCRIPTION	Q,TY
F9312402	BOCC.superiore CUPOLA	BUSHING	1
F9312701	BOCC.inferiore CUPOLA	BUSHING	1
F9340100	CONTENITORE d 360x260h #	HOPPER d360x260h	1
F9340102	CONTENITORE d 360x430h #	HOPPER d360x430h	1
F9340201	PERNO CONT. CORTO 12x110	HOPPER SHORT PIN 12x110	1
F9340202	PERNO CONT.LUNGO 12x130	HOPPER LONG PIN 12x130	1
F9340300	BRACCIO COPERCH.CONTEN. STD	HOPPER COVER ARM	1
F9340302	BRACCIO COPERCH.CONTEN. ALTO	EXT.HOPPER COVER ARM	1
F9340500	PUNTALE PROTEZ.SENSORE CONTEN.	MAGNET SUPPORT	1
F9350100	PROT.POSTERIORE INOX # kg 4 AISI 304	SS REAR PROTECTION	1
F9350102	PROT. POSTER. F 4000	REAR PROTECTION F4000	1
F9350200	PROTEZIONE Laterale Sx	LEFT SIDE PROTECTION	1
F9350300	PROT.STAMPO 205x300 # AISI 304	SS DRUM PROTECTION 205x300	1
F9350400	PERNO CERNIERA 8x177 M4	LOCKING KEY PIN 8x177 M4	1
F9350700	CERNIERE INOX DX-SX Ex F9350401	LOCKING LEFT AND RIGHT KEY	1
CODE	DESCRIZIONE	DESCRIPTION	Q,TY
F9313601	GR. RACLA HAMBURGATRICE INOX	S.S. PADDLE LARGER	1
F9313700	GR. RACLA HAMBURGATRICE	PADDLE - COMPLETE ASSEMBL	1

ABM
F2000 - F 3000 - F4000 - B1200 - HD3000

FROM SERIAL NUMBER:1710

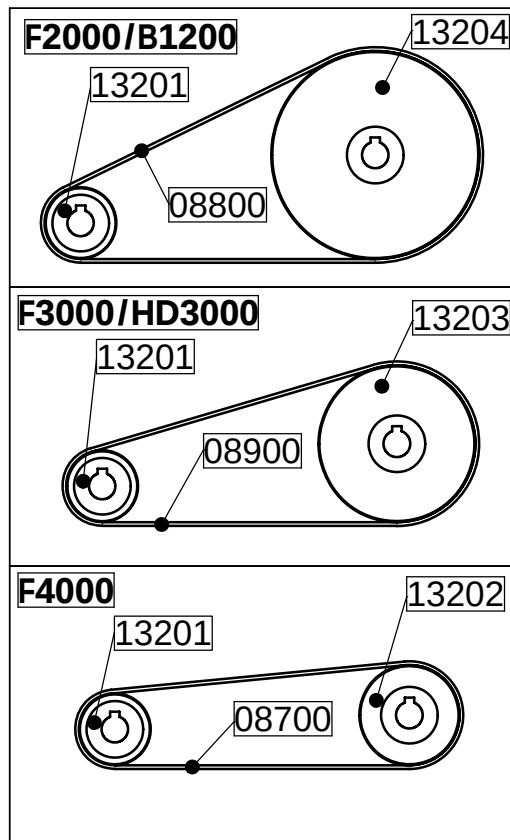
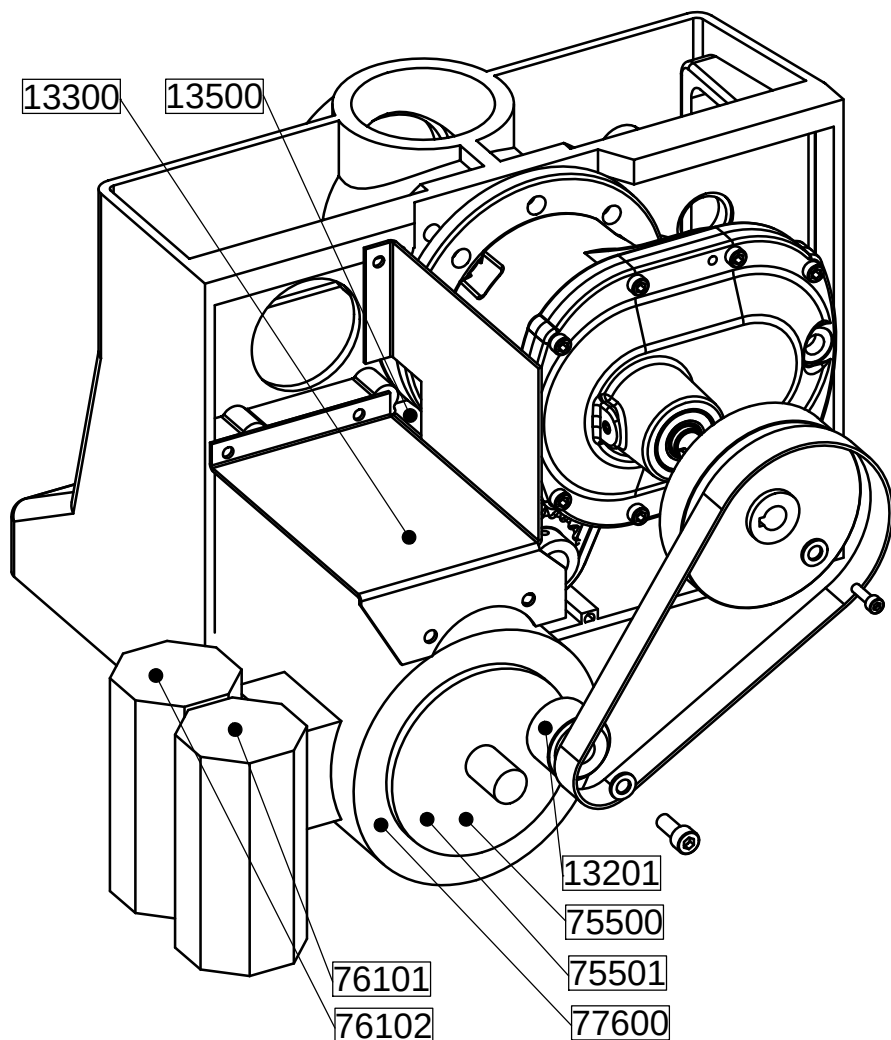
77800 115V-60Hz.

77700 220V-50Hz.



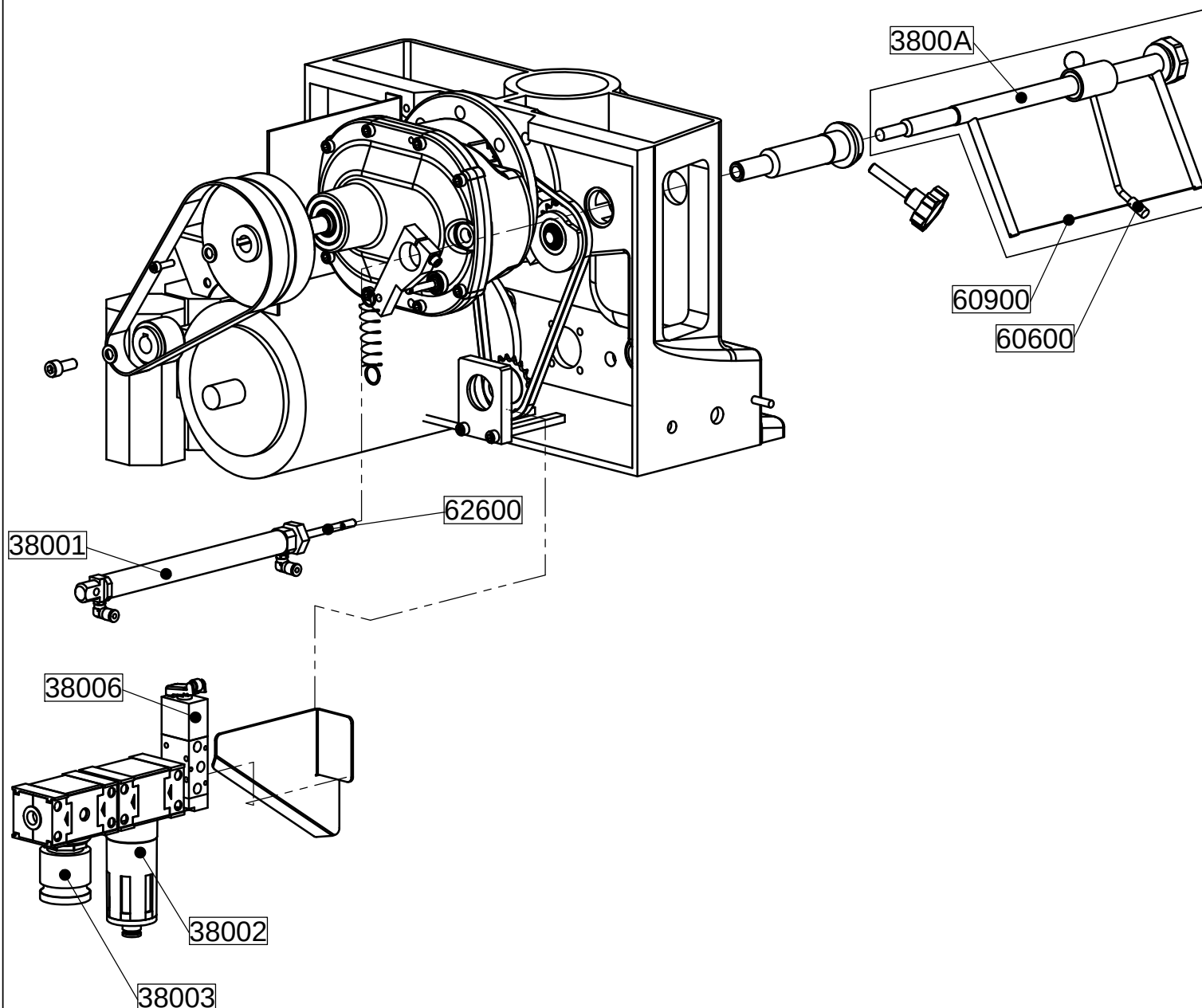
CODE	DESCRIZIONE	DESCRIPTION	Q.TY
F9340403	MAGNETE CERAM.2S 16x9,5x8 MA x CONTENITORE F9340100	CERAMIC MAGNET 16x9, 5x8	1
F9350800	PROT.SUP. PEDALE Pneumatico	PNEUM. FOOTSWITCH SUP. PROTEC.	1
F9375300	POTENZIOMETRO F 4000 MOELLER M22 - R10K 1	POTENTIOMETER F4000 R10K1 M22 MOELLER	1
F9376000	CONTATTO DOPPIO	DOUBLE SWITCH	2
F9376100	SELETT. MANO/PIEDE - TUTTE	HAND/FOOT SWITCH	1
F9376200	PULSANTE STOP	STOP BUTTON	1
F9376300	CONTATTO 1 NC VITE	SWITCH 1 NC SCREW	1
F9376400	CONTATTO 1 NO VITE	SWITCH 1 NO SCREW	1
F9376800	MAGNETE CERAM.2S x PROTEZIONE	MAGNET	1
F9377000	PEDALE 6210-OB (F93/CF 17)	FOOTSWITCH 6210-OB	1
F9377100	INT.PNEUM. DEVIAZ. MOM.6871-01	PNEUM. SWITCH MOM.6871-01	1
F9377200	PASSAPARETE x PEDALE PM1206E	FOOTSWITCH CONNECTION PM1206E	1
F9377500	INVERTER SYN10 S 220 05 AF IP65 S 50/60H Kw 0,75 220V	INVERTER SYN10 S 220 05 AF IP65 S 50/60H Kw. 0,75 220V	1
F9377900	INVERTER SYN10 S 220 05 AF IP65 S 50/60H Kw 0,75 115V	INVERTER SYN10 S 220 05 AF IP65 S 50/60H Kw. 0,75 115V	1
K20003	LAMPADINA ROSSA	RED LAMP	1
K20004	LAMPADINA VERDE	GREEN LAMP	1
F9377700	SCHEDA M/ARRESTO 220 50 HZ DA SN. 1710	CARD 220/50 HZ START STOP FROM SN. 1710	1
F9377800	SCHEDA M/ARRESTO 115 - 60 HZ DA SN. 1710	CARD 115/60 HZ START STOP FROM SN. 1710	1
Z9AMR	SENSORE SICUREZZA HAMB	SAFETY CONTACT	1
Z9SCH	SCHEDA M/ARRESTO 220 50 HZ	CARD 220/50 HZ START STOP	1
Z9TCA	SCHEDA M/ARRESTO 115 - 60 HZ	CARD 115/60 HZ START STOP	1
CODE	DESCRIZIONE	DESCRIPTION	Q.TY
F9350801	GR. PEDALE Pneumatico HAMB	FOOT SWITCH - COMPLETE ASSEMBL	1

ABM
F2000 - F 3000 - F4000 - B1200 - HD3000

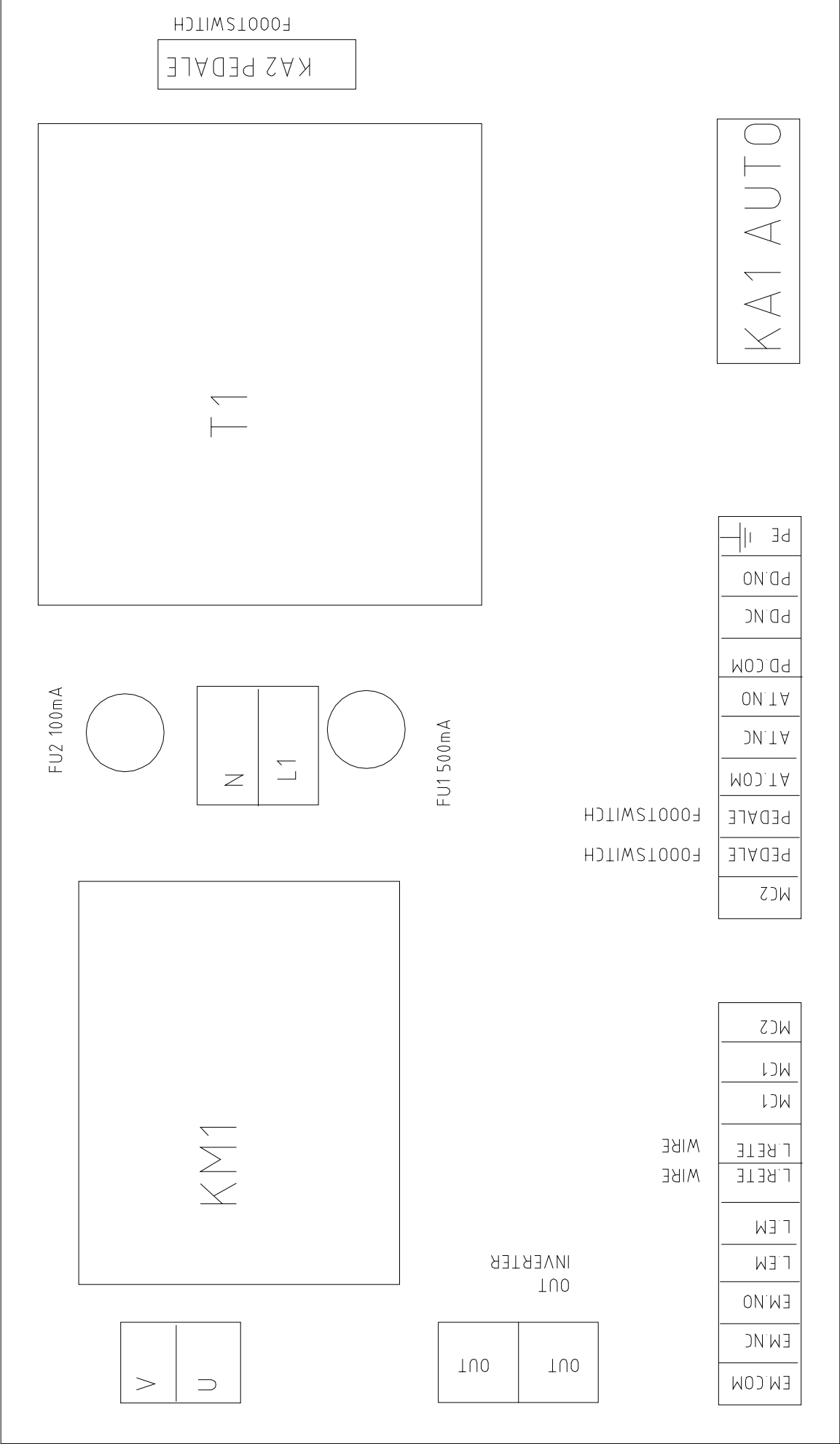


CODE	DESCRIZIONE	DESCRIPTION	Q.TY
F9308700	CINGHIA F4000 POLY V 508J8 sv 200	BELT - F 4000 PJ 457 J8	1
F9308800	CINGHIA F2000 B1200 PJ 559 J8 PJ 559 J8 220 mm	BELT - F 2000 B 1200 PJ 559 J8 220 mm	1
F9308900	CINGHIA F3000 HD 3000 PJ 533	BELT - F3000 HD 3000 - PJ533	1
F9313201	PULEGGIA MOTORE HAMB 38 x 31 tutti i modelli	MOTOR PULLEY 38 x 31- ALL	1
F9313202	PULEGGIA RIDUTTORE 53x31 f4000	GEAR PULLEY 53 x 31 - F 4000	1
F9313203	PULEGGIA RIDUTTORE 83x31 F3000 F 3000 HD	GEAR PULLEY - F 3000 HD 3000 83 x 31	1
F9313204	PULEGGIA RIDUTTORE 110x31F2000	GEAR PULLEY - F 2000 110 x 31	1
F9313300	SUPPORTO MOTORE HAMBURGATRICE TUTTE	MOTOR SUPPORT	1
F9313500	MOLLA TENDITORE MOTORE	MOTOR SPRING TENS	1
F9375500	MOT.M71S2K-35161 LMR71 vel fix kw 0,55 230V 50Hz B14 rot.ant	MOTOR - LMR 71 230 V. 50 Hz F 2 - 3 - HD 3000 - B 1200	1
F9375501	MOT.F2000 M71S2K 35150 USA kw 0,55 115V 60 Hz	MOTOR - LMR 71 115 V. 60 Hz F 2 - 3 - HD 3000 - B 1200	1
F9376101	CONDENSAT MOT 31,5 40 mf nero VLCA 280 40 - 60	MOTOR CAPACITOR BLACK 31,5 - 40 mf VLCA 280 40 : 60	1
F9376102	CONDENSAT MOT bianco	MOTOR F 2-3- B 1200 CAPACITOR WHITE	1
F9377600	MOT. TR PER F 4000 AMI 71Z BA2 0,55 Kw 230/400 V 50Hz B14	MOTOR THREE PHASE F 4000 only 0,55 Kw 230/400 V 50Hz B14	1

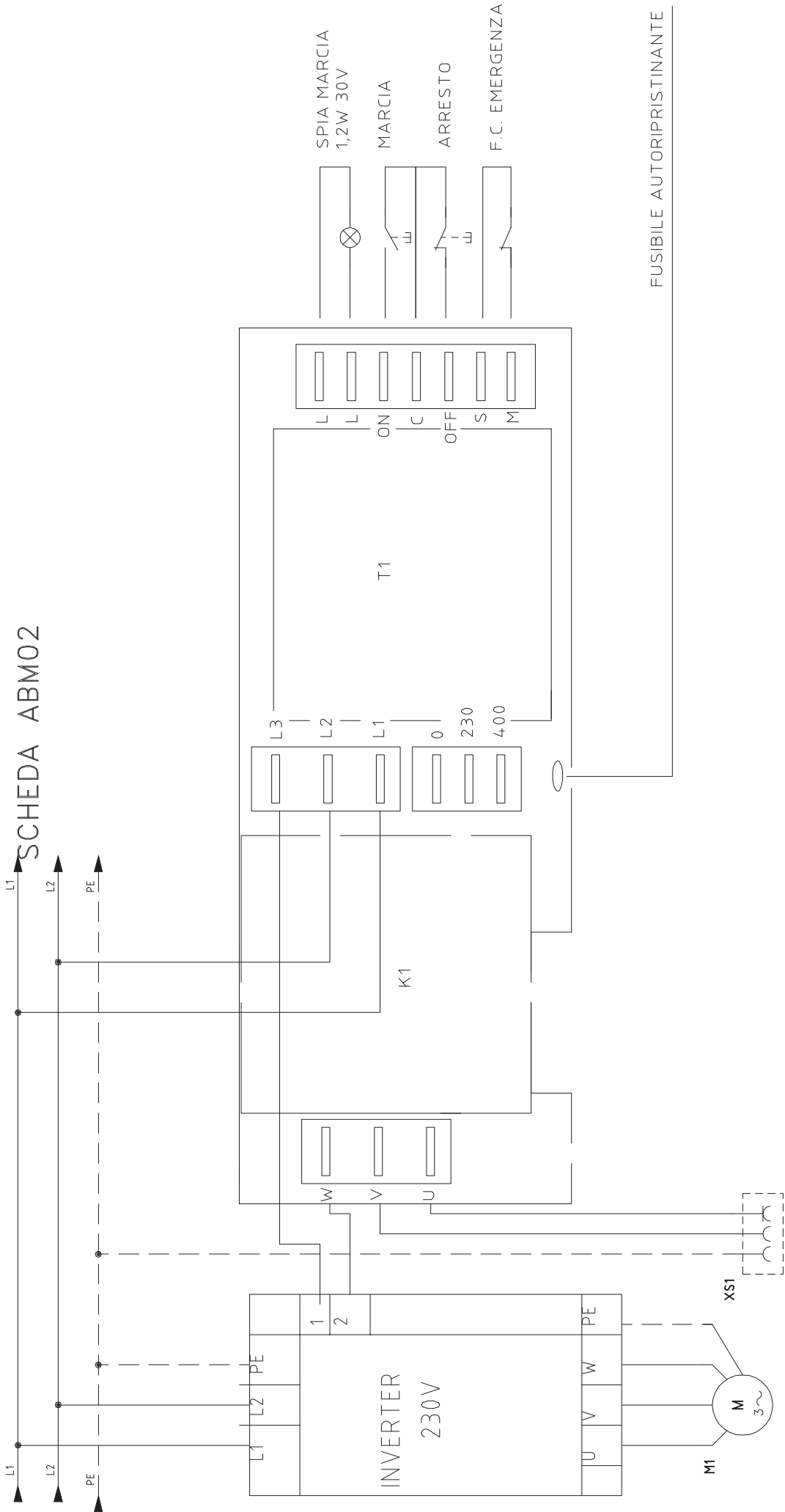
ABM
F2000 - F 3000 - F4000 - B1200 - HD3000
PNEUMATIC VERSION



CODE	DESCRIZIONE	DESCRIPTION	Q.TY
F9338001	CILINDRO 1130160170CP ISO 6432	CILINDER - ISO 6432	1
F9338002	MR BIT 1/8 04 - FILTRO	AIR FILTER	1
F9338003	FIL BIT 1/8 20 RMSA	FIL BIT 1/8 20 RMSA	1
F9338006	VALV MEV 25 RSS 00	SWITCH -	1
F9362600	PISTONE CILINDRO PULIT.PNEUM	PNEUMATIC PISTON	1
F9360600	PULITORE FILO	WIRE CLEANER	1
F9360900	FILO PULITORE Ø1mm	S.S.WIRE	1
CODE	DESCRIZIONE	DESCRIPTION	Q.TY
F933800A	GR.PULITORE PNEUM	COMPLETE PNEUMATIC CLEANER ASSEMBLY	1



0	1	2	3	4	5	6	7	8	9				
EM.COM COMUNE EMERGENZA EM.NC CONTATTO NORMALMENTE CHIUSO EMERGENZA EM.NO CONTATTO NORMALMENTE APERTO LEM LAMPADA EMERGENZA LEM LAMPADA EMERGENZA L.RETE LAMPADA RETE L.RETE LAMPADA RETE MC 1 FINECORS A 1 MC1 FINECORS A 1 MC2 FINECORS A 2 MC2 FINECORS A 2 PEDALE PEDALE PEDALE PEDALE AT COM SELETTORE AUTOMATICO COMUNE AT, NC SELETTORE AUTOMATICO CONTATTO CHIUSO AT.NO SELETTORE AUTOMATICO CONTATTO APERTO PD.COM SELETTORE PEDALE COMUNE PD.NC SELETTORE PEDALE CONTATTO CHIUSO PD.NO SELETTORE PEDALE CONTATTO APERTO				EMERGENCY CLOSED CONTACT FOR EMERGENCY OPENED CONTACT FOR EMERGENCY EMERGENCY LAMP EMERGENCY LAMP WIRE LAMP WIRE LAMP LIMIT SWITCH LIMIT SWITCH LIMIT SWITCH LIMIT SWITCH FOOTSWITCH FOOTSWITCH AUTOMATIC SWITCH AUTOMATIC SWITCH FOR CLOSED CONTACT AUTOMATIC SWITCH FOR OPENED CONTACT FOODSWITCH FOOTSWITCH FOR CLOSED CONTACT FOOTSWITCH FOR OPENED CONTACT						ABM COMPANY srl		FOGLIO 4 SEGUE /	
ABM COMPANYSrl				Impianto		Ordine							
				SCHEMA AMBURGATRICE.CON SICUREZZE CONTROL SCHEMATIC		ABM							
				Denominazione		Commessa							
				LEGGENDA		ABM03 Esecutore AM							
Dis. N.		ABM03											
CAD		SPAC											
Nome File		ABM03											
Data		19/03/2009											

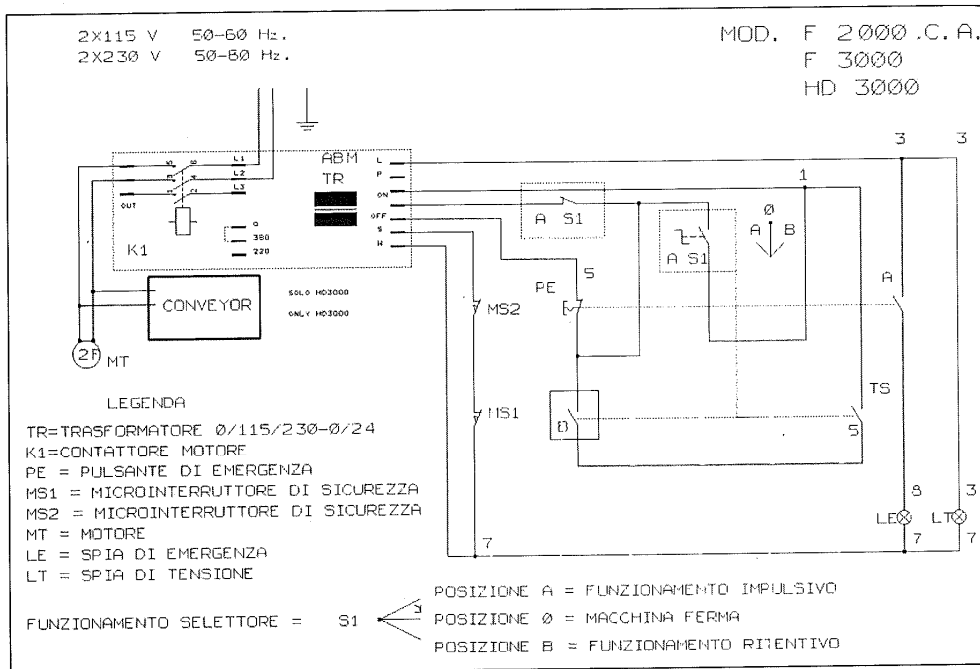


FUSIBILE AUTORIPRISTINANTE

ABM MODEL F4000 INVERTER	Dis. N. ABM02INV		Impianto SCHEDA ABM 02 CON INVERTER	Ordine		
	Cliente			Commessa ABM		
	Nome File ABM02INV		Denominazione Schema di collegamento		Esecutore AM	
	Data 11/03/2008					
					FOGLIO	
					SEGUE	

WIRING DIAGRAM

Models F2000 / F3000 / HD3000



Contents: TR = Transformer 0/115/230 – 0/24

K1 = Motor Contactor

PE = Emergency Button

MS1= Security Microswitch

MS2= Security Microswitch

MT = Motor

LE= Emergency Signal Lamp

LT= Tension Signal Lamp

TS = Signal Transistor

Selector Functions: S1

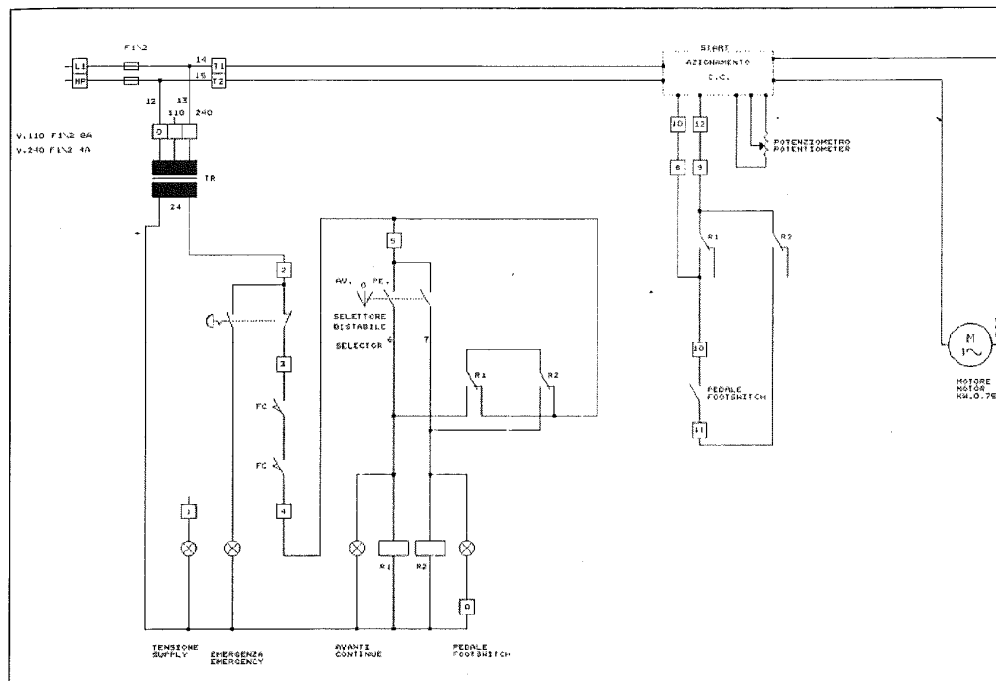
Position A = Impulsive Function

Position Ø = Stopped Machine

Position B = Retentive Function

WIRING DIAGRAM

Model F4000



Contents: TR = Transformer 0/115/230 – 0/24

K1 = Motor Contactor

PE = Emergency Button

MS1= Security Microswitch

MS2= Security Microswitch

MT = Motor

LE = Emergency Signal Lamp

LT = Tension Signal Lamp

TS = Signal Transection

Selector Functions: S1

Position A = Impulsive Function

Position Ø = Stopped Machine

Position B = Retentive Function

L1/MP = Feeding 220 Vac

T1/T2 = Start/Stop Board

Ø = Signal Lamps

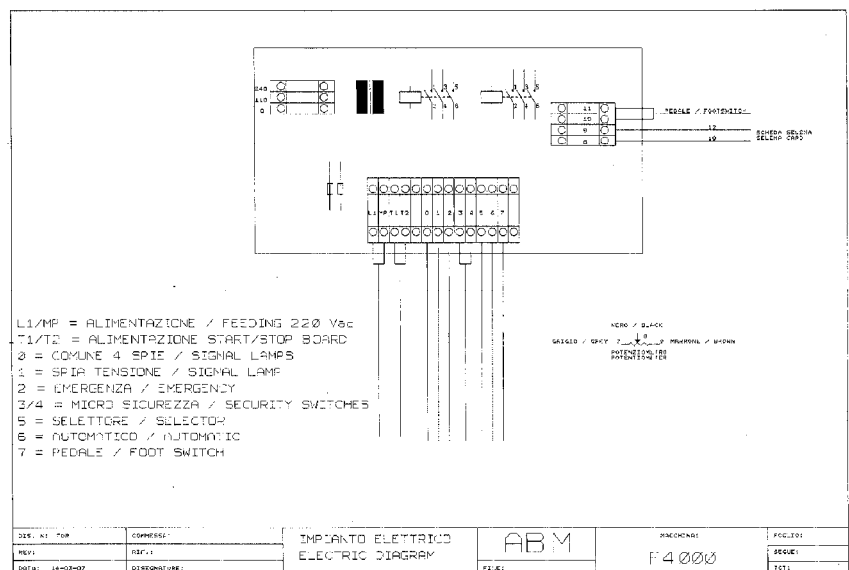
1 = Emergency

3/4 = Security Switches

5 = Selector

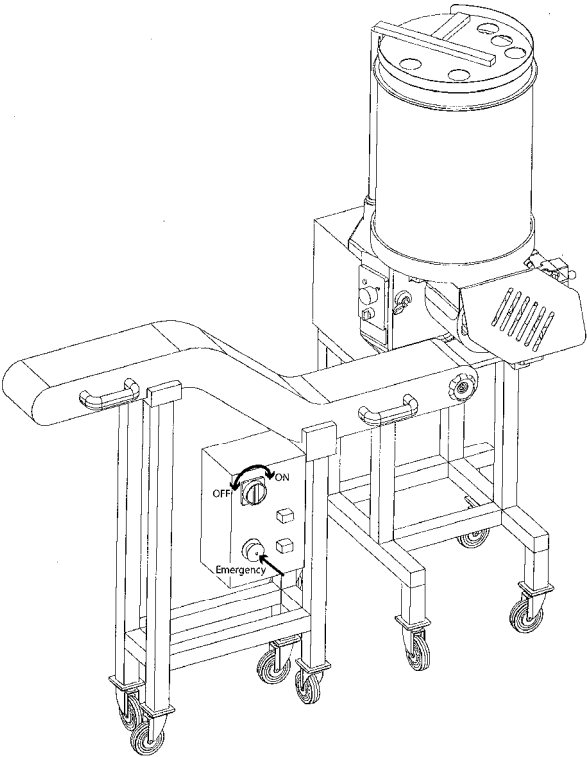
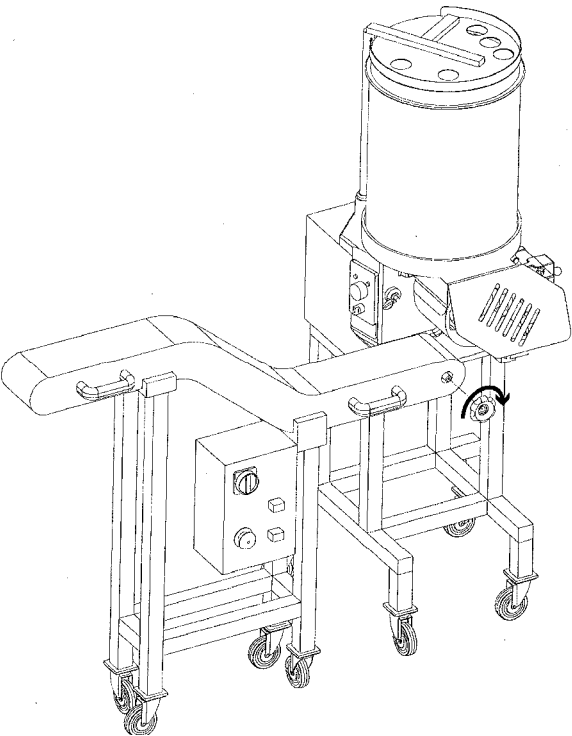
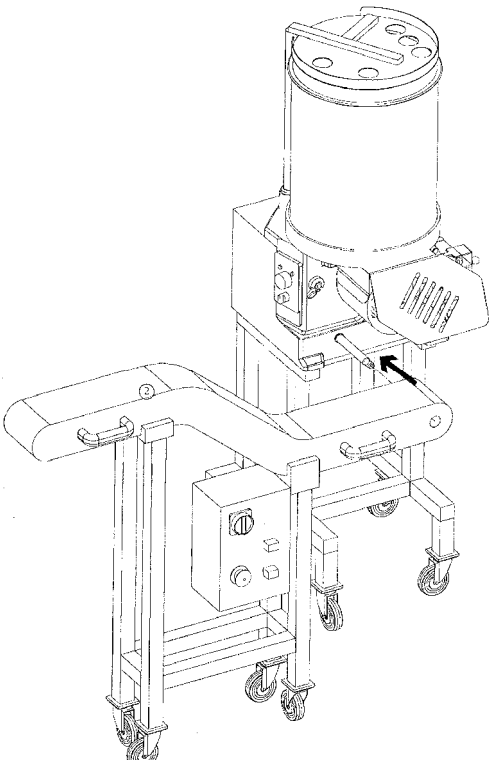
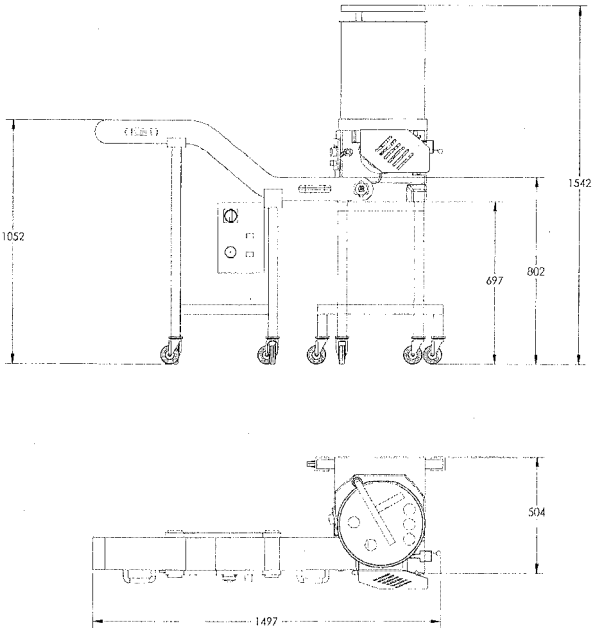
6 = Automatic

7 = Foot Switch



HD3000

CONVEYOR ASSEMBLY



THE BIRO MANUFACTURING COMPANY
1114 W. Main Street
Marblehead, OH 43440 USA
Ph. 419-798-4451 Fax 419-798-9106
Email: service@birosaw.com